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Ivory towers, notoriously, are surrounded with the mud of everyday life. Olga Wojtas looks at the charitable work of the **EDINBURGH UNIVERSITY SETTLEMENT**, celebrating its 80th birthday this year (page 11)

"The idea in this country is that if you do two things yoy aren't really serious about either of them": Karen Gold talks to **ROY BAILEY**, folk singer and polytechnic head of department (page 11)

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Crisis in the classics

D. J. Watson on A. N. Whitehead

Graduate employment briefing

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TIMES PAST — THE TIMES

HIGHER EDUCATION SUPPLEMENT

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The NAB under scrutiny

The National Advisory Body has grown into a remarkably robust institution – too robust perhaps for those who doubted whether a reasonable compromise could ever be struck, of if struck made to stick, between central and local government on the planning and management of polytechnics and colleges. The NAB has been an assured success within the non-university sector, to such an extent indeed that now it is difficult to conceive how polytechnics and colleges were planned before 1982 (they weren't!). But the NAB's influence has not been confined to the wrong side of the binary tracks. It has become a pushy partner-rival of the University Grants Committee and there are plenty of people in powerful positions who already regret that the UGC is not more like the NAB. The planning of all higher education, not just the non-U part, will never be the same again.

With the benefit of hindsight the success of the NAB may not appear so startling. It has filled a vacuum identified as long ago as 1977 when the Oakes committee was set up to examine how a national policy for polytechnics and colleges could be developed. This vacuum became dangerously destructive after the capping of the advanced further education pool. Something like the NAB had to be created – and quickly – if the whole non-university sector was not to collapse into chaos.

Even the form of the NAB, the delicate self-regulating balance between central and local government, was almost exactly predetermined by the deadlock that followed the failed putsch of 1981, when the Department of Education and Science attempted to remove the polytechnics from local authority control. After that the DES had no choice but to do a deal with the local authorities, which in turn had to demonstrate that the issue of national coordination could be tackled successfully within the traditional context of a central-local government partnership. The motives that led the DES and the local authorities to strike the original NAB bargain are as persuasive as ever; neither partner really has anywhere else to go. So in the circumstances the NAB could hardly be anything else but successful. Too much was, and is, at stake to contemplate failure.

But two other factors, which could not so easily have been predicted, have contributed to the NAB's present high reputation. First, at a time when institutions generally are falling into a disrepute and public affairs too often seem to be marked by cynicism, defensiveness and immobility, the NAB seems to be an exception. Here is a new institution that seems to work. Of course many people, especially perhaps in polytechnics, object to the NAB; they may even regard it as a conspiracy by politicians, administrators and other managerial opportunists to repress the academic ambitions of their institutions. Yet in a curious sense most are glad that the NAB exists. Just by being there and acting decisively it seems to have raised the collective morale of the non-university sector in an intangible but powerful way. The NAB has made the non-university sector count.

Second, the people running the NAB have made the best of their opportunities. Both committee chairmen, first Mr William Waldegrave and now Mr Peter Brooke, have acted with great skill and discretion. The result has been to establish the NAB as a non-partisan institution that operates for much of the time under conditions of consensus and expertise. The chairman of the board, Mr Christopher Ball, has been higher education's discovery of the 1980s. Love him or hate him, you certainly cannot ignore him. His energy has been a vital ingredient of the NAB's success. But perhaps the NAB's most powerful secret weapon has been its superb secretariat headed by Mr John Bevan.

The other side of the NAB's success – there has to be a catch somewhere – is its relative invulnerability from criticism. The review within the DES to decide whether the NAB should be confirmed as a permanent body seems to have been a perfunctory affair. How could it have been anything else when no credible alternative existed? The most outspoken critics of the NAB seemed at times obsessed by a natural but naive nostalgia for the might-have-been of 1981. Their views could easily be dismissed as the bad-loser whingeing of political innocents, and as such summarily dismissed. The NAB lost the "interim" in its title without serious scrutiny. Indeed its empire was extended to include the voluntary colleges as a reward for its conspicuous success.

Such a robust institution as the NAB should perhaps have been subjected to more searching, although constructive, criticism. It might have helped the NAB to stay young and – shall we say, humble? For there is a slight danger that the very feebleness of many of the critics may encourage a high-handedness on the part of NAB members and officers. But a much more serious danger is the first, that the NAB will get set in its increasingly middle-aged ways in the absence of any serious challenge that keeps it on its toes. All institutions, however vital, become the victims of administrative sclerosis; procedures reproduce themselves, thinking becomes more rigid, "house" traditions become entrenched.

It is in this spirit that the critical assessment of the NAB's performance of Dr Peter Knight, the new director of the City of Birmingham Polytechnic, (page 12) should be received. It is not necessary to agree with all, or any, of what Dr Knight has to say to believe that such constructive criticism is to the ultimate good of the NAB. Dr Knight's case rests on three simple points: the NAB's funding methodology is hopelessly contrived and based on distinctions that are not defensible; it has failed to develop a coherent policy for institutions (as opposed to subjects or students); and it has adopted the ethos of the universities. He does make other criticisms, about the NAB's over-control of student numbers and the impact of its policies on efficiency, but they are less significant.

On the first Dr Knight is right. The funding methodology has become so Byzantine that soon only one or two people on the technical and data group (and on *The THES*) will understand what is going on. But his preferred solution, uniform funding formulas for all institutions, might make things worse. What is needed is a more sophisticated not a simplified approach to funding. Of course not sophistication in the sense of even more cumbersome formulas, but in the complementary senses of acquiring a much greater understanding of how the cost structures of institutions are built up and of applying a disciplined subjectivity to judging the needs and potential of individual polytechnics and colleges. Formulas and figures may help with the first but not the second.

Dr Knight's second charge against the NAB is also fair enough, so far as it goes. The NAB has made no coherent effort to draw up an institutional map of the non-university sector. Partly this is because such an operation would be highly sensitive and, unless handled with the greatest care, could be wrecked on the same rock as the polytechnics' UDI of 1981; partly because so long as local authorities demonstrate any capacity sensibly to determine the pattern of their institutions the NAB is wise to take a back seat (a good example is the Inner London Education Authority's scheme for a London institute that embraces its arts and design colleges); partly because it is difficult to envisage a sensible pattern of institutions for the non-university sector without taking more account than the NAB is presently able of what is happening in the university sector.

His third criticism is much weaker. It is simply not fair to base the damning charge that the NAB has sold out to university values on the slender evidence that it chose to establish a research rather than continuing education fund. It can only be sustained if all research is regarded as the prerogative of the universities, a conclusion which the NAB is strenuously trying to deny on behalf of the polytechnics. A much more balanced conclusion would be that the NAB has gone about as far as it safely can in its positive discrimination in favour of part-time, sub-degree and other non-U courses.

His second piece of evidence to justify this charge of subservience to university values is the NAB's growing concern with the "unit of resource". Dr Knight is right to criticize those who elevate the "unit of resource" into a fetish behind which many conservative and inflexible practices can shelter. Maybe the UGC fell into this trap between 1975 and 1982. But the NAB is surely right to be concerned about the effect declining resources and rising student numbers are having on the public sector's fabric – physical, professional and academic.

So Dr Knight's charges probably have to be dismissed – not because they are wrong in substance because the NAB is already fully aware of the difficulties and dilemmas which he has described. Yet this conclusion does not invalidate the process of constructive criticism to which the NAB, like the UGC, the DES and all public bodies, should be routinely subjected. It is important to develop and sustain a positive dialogue about the future policies of the NAB now that the negative I-wouldn't-start-from-here criticism has died away. This can only strengthen what is already a robust and successful institution.

The university pay crisis

University teachers have now had to wait six months for the salary increase that was due to be paid in the spring and still there is no prospect of an early settlement. Lecturers in polytechnics and colleges have had to wait just as long, but at least a provisional deal has been struck which they are now considering whether to accept. Maybe if they do, this will establish a "going rate" that will unlock the deadlocked university pay negotiations.

Welcome as such an outcome would be in the short term, its effect would simply be to roll over the accumulating difficulties about university teachers' pay to another year. As the vice chancellors recognize in their recent letter to Sir Keith Joseph; the Secretary of State for Education and Science, we now face a gathering crisis on university salaries. This crisis cannot be solved within the existing salary negotiating machinery. Because of their dwindling cash-limited grant, universities have almost no room for manoeuvre while the Association of University Teachers has little effective bargaining strength. The Committee A-B structure has degenerated into little more than a device for producing shotgun settlements that tend to exacerbate the long-term problems.

The Department of Education and Science cannot continue to make hopelessly unrealistic assumptions about salary increases in setting the increasingly inadequate university grant and then just sit on its hands. A wide-ranging review of the health of the whole university teaching profession is now urgently required. Such a review cannot be restricted to pay; it must also consider difficult issues like "new blood", the promotion blockage, the lack of mobility, yes even the case against tenure and for differential pay if that is the way to secure DES support.

Laurie Taylor

The Departmental Office
September 13th

Dear Professor Lapping,

Thank you very much for your postcard which I've now put up on Departmental noticeboard. (Do all the women in Ibiza really go round the beach like that?).

As you will know it's now getting nearer to the beginning of a new term and I'm accordingly writing to you at Dr Quintock's suggestion to bring you up to date on some "confidential matters".

You'll be pleased to hear that we've been able to retain your professorial phone-line. That is, the one with a dirrect outside line which can be used between three and half-past four in the afternoon. But as you'll remember the university is very concerned about this privilege being abused so special combination locks have now been fitted to such phones. Your secret number, without which you'll be unable to lift the receiver, is:

86-42-78-36-19

Unfortunately this is easily confused with the departmental confidential number for using the photocopier, a system which we were forced to introduce this year when we found that the Psychology Department (typical!) had been doing hundreds of copies without paying. The number to dial here is:

85-43-61-36-19

Some other secrets. There is still a professorial "hot-line" to the Vice Chancellor which of course is only available in cases of extreme emergency (eg some vague indication in a colleague of the onset of a terminal illness) but this has now been changed from 9471 to 8633, and in order to circumvent the possibility of the number being accidentally discovered by outsiders, you are asked to introduce yourself initially with your "designated non-de-plume". The Registrar rang yesterday to tell me that the theme for this year will be *Animals of the English Countryside* and your personal name will be:

BADGER

Finally, something about The Word - Processor - and - Computer. This is a brand new piece of equipment which was bought last year by our department (in confunction with Nalgo, the Catering Department and the Sports Centre) to help out with secretarial and administrative problems. I'm afraid that I haven't yet seen it myself because ever since it arrived Dr Quintock has spent night and day sitting looking at the screen, getting what he calls "the hang of it". But he did decide last month to put all the secret staff and student files "on to it", so that we now need a secret code (available only to Dr Quintock, me, you, and someone from the Catering Department). You must first "log in" with your number which is:

8746392

and then give your password (this has to be slightly obscure because apparently some student "hackers" are very good at guessing such passwords as "wives' names" etc). Your word is therefore:

ZEUGMA (Dr Quintock says "just think of 'syllepsis'")

That's all the secret things for the time being so I'll say goodbye for the moment and will of course be in touch again shortly about your timetable (yes, I have remembered about Mondays, Tuesdays, and Thursdays!)

Best Wishes

Maureen (Departmental Secretary)

P.S. I'm sorry this letter is in such a state but when Dr Quintock saw it lying on my desk he immediately crumpled it up and threw it into the

The Times Higher Education Supplement

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Bad management was to blame for crisis at PNL

by Karen Gold

The Polytechnic of North London must reject once and for all the idea that it is a prisoner of its past or of its public image, the independent report on the polytechnic published this week recommends.

Its real nature and achievements are very different from its image, and have much in common with any other institution of higher education, the inquiry concludes. But concerns about its management – in particular internal communication and dealing with outside bodies – were justified, it says.

The inquiry was set up by the Inner London Education Authority at the beginning of this year. It was chaired by Miss Sheila Browne, principal of Newnham College, Cambridge, and former senior chief HMI. Its other members were Professor Ralf Dahrendorf, former director of the London School of Economics, and Mr Clive Jenkins, general secretary of the Association of Scientific, Technical and Managerial Staffs.

It followed much publicised demonstrations and litigation over philosophy student and National Front member Patrick Harrington. It describes a divided polytechnic in which outsiders, such as HM Inspectorate and the Council for National Academic Awards, were seen as "somewhat unwelcome intruders who can sometimes be ignored and against whom one should always defend oneself".

The risks in the situation where some parts of the polytechnic were allowed to consider themselves the real and only polytechnic "seem not to have been appreciated by either the court (of governors) or senior management", the report says.

Staff giving evidence felt powerless to influence day to day events even as mundane as supplies of chalk or circulation of mail. Ignorance of an overall policy for PNL was frequently expressed. Real decision-making was thought to take place outside the "tangle of committees and plethora of procedures".

Director Dr David MacDowall took early retirement at the end of last year, just before the committee was established. The report says a residue of hostility and lack of trust towards senior managers remains, and a new director must be appointed who can deal with this as well as improving structures which have already been changed by the acting director Dr John Beishon. The new director must have vigour, vision, clear-sightedness, surefootedness, political sensitivity and the ability to inspire confidence and to communicate, the report says.

The report rejects accusations of improper political meddling in PNL either by the ILEA or the court of governors. But committee members found some people in the polytechnic "tend to see things in crude political terms", and that there was a tendency to use outside political channels.

Politics was involved in the protests against Mr Harrington and in student union affairs. But the students' union also suffered from lack of communication with the polytechnic's management. The majority of students were uninformed about students' unions and were above all concerned with gaining good qualifications.

The management is criticized for not dealing with the Harrington affair in mid-1983, before it became serious. However intractable the situation, the polytechnic could have done more to reduce its sufferings through informal discussions and more sophisticated interpretation of the code of conduct and legal decisions, the report says.

The committee's recommendations emphasize that "given a clear effort of will at all levels, there is no reason why the polytechnic should not manage itself effectively". The importance of a new and dynamic director is stressed. The court of governors should be smaller, have more industrial and commercial representation and be better known in the polytechnic.

Senior management should also be more knowledgable of and known in the different buildings. A communications system should be set up, with more places for staff and students to meet informally. More advantage should be taken of the advice of outside bodies such as external examiners – the committee says it was particularly worrying that most of its points had been made by others before but not implemented. "What the polytechnic needs is not so much changed structures as changed attitudes", it says.

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Wide brief for Croham review

by John O'Leary

Lord Croham has been given an unexpectedly wide-ranging, eight-point brief for his committee's review of the University Grants Committee.

A letter of guidance from Sir Keith Joseph, Secretary of State for Education and Science, leaves the way open for the committee to recommend substantial changes in the UGC's role and methods of operation. But it rules out the establishment of a single planning body for all higher education.

Sir Keith told Lord Croham that his committee's terms of reference had been widely drawn and he did not wish to prescribe its work. His eight suggested areas of inquiry were those the Government considered significant.

They were the UGC's constitutional position and role in relation to the universities and Government; its responsibilities and effectiveness; whether it should remain an advisory body with no formal executive responsibility; its ability to promote inter-university collaboration and rationalization; the accountability of both the UGC and the universities to the Government and Parliament; the UGC's membership, internal structure and staffing; and its working methods.

Sir Keith also asked Lord Croham to consider the implications of the Jarratt report on university efficiency for the role and functions of the UGC. And he asked that the review should note points which may be relevant to other public bodies.

The letter included a hint of changes in the relationship between the UGC and the Scottish universities arising from the Scottish Tertiary Education Advisory Council's own review, which is expected to be published next month.

Relations with the two universities in Northern Ireland – also the subject of a separate review – were also highlighted in the letter, as was the role of the UGC in medical education and the relationship between medical schools and the National Health Service.

The committee was invited to interview Sir Keith or other ministers, as well as civil servants. While acknowledging the heavy workload facing the committee, Sir Keith asked for a

Send in the student clowns

Students last week auditioned for places at the College for Clowns being established at Blackpool's Tower Circus, with real jobs waiting for the successful few who make it through the auditions and the training.

More than 40 people turned up to perform their party tricks in front of the circus's resident clown Grimble, its ringmaster Norman Barrett, and the owners, Peter and Christine Jay. Almost all were unemployed.

Decline of the Roman empire, 15

Scientific research used for commercial data

by David Jobbins

Universities are supplying information on key scientific and technological research to a commercial computerised database although a wide range of safeguards have yet to be agreed.

Longman Cartermill, part of the Longmans publishing empire, is compiling the database, styled British Expertise in Science and Technology, ready for a launch in the new year.

The initiative springs from a report by the Advisory Council for Applied Research and Development, which drew attention to the ways universities and polytechnics could make their activities more readily available to industry. When the database is complete, industrial subscribers will be able to feed in their requirements and receive up to date and comprehensive information on relevant research.

Outline proposals were drawn up by the University Directors of Industrial Liaison group, and the scheme was put out to tender last year. This year both the Committee and Vice Chancellors and Principals and the Committee of Directors of Polytechnics gave their support to the plan.

In May the CVCP gave the green light for universities to begin to supply data. According to Mr Michael Toberts, managing director of Longman Cartermill, approximately 40 universities and 28 polytechnics have already done so, with about 55 per cent of academics in the target areas giving details of their research interests.

But vice chancellors and the company have yet to agree on the terms of a code of practice which governs how data is compiled, checked, handled and marketed. The CVCP is taking legal advice on whether the code is sufficient protection for universities if they become dissatisfied with the way BEST operates and want to pull out.

Opinions are divided on whether a code under which universities may simply cease to supply and update their entries is sufficient, or whether a more stringent legal constraint is needed.

The company has agreed to the establishment of two key monitoring bodies an independent advisory committee chaired by Sir Alastair Pilkington, and a liaison group on with representatives from universities and polytechnics.

The Association of University teachers welcomed efforts to promote collaboration between universities and industry. But it expressed concern that data collection had begun before agreement had been reached on the code.

It has also advised its members to make clear that any information supplied to their university for the database should be used for that purpose alone.

East-West clash over role

by Paul Flather

A clash of views between top British-German, and American businessmen and their Japanese counterparts over the proper research role of universities emerges an international survey carried out by MORI in five industrialized nations.

Most European and American businessmen believe universities should shift from doing fundamental research to producing more applied work, while most Japanese businessmen think this is a bad idea and express satisfaction with their universities' current research emphasis.

The survey of 176 managing directors and senior executives at the top of established, multi-million pound, companies, showed six out of seven British businessmen, eight of nine Germans, and three out of four Americans of five Japanese disagreed.

According to the pollsters this suggests the Japanese have a clear idea of who creates ideas, and who develops and converts them. The Japanese seem to know what they want and are enthusiastic about what they are getting. The westerners seems to want universities to start turning out cheap applied research.

The survey also showed that one in five businessmen point to a shortage of skilled staff as the main constraint on product development and innovation.

The shortages were mentioned by 41 per cent of British respondents, compared with Japan (37 per cent), benelux (14), US (11) and West Germany (8).

The survey, conducted this spring, indicates trends, but the relatively small sample does mean findings must be treated with caution.

Extramural rap from DES

by Maggie Richards

A stern indictment of current extramural programmes and a plea for universities to engage in widespread debate on the design of provision for the 1990s was delivered by a senior civil servant from the Department of Education and Science this week.

Addressing a conference on responsible bodies at Oxford, Mr Noel Thompson, under secretary at the DES, referred enthusiastically to the style of continuing education available in some American universities, and described one institution in particular where a small core of "entrepreneurial academics and business orientated administrators" had created an "educational powerhouse".

Through a series of questions about present provision he drew a highly critical scenario of both the work of the extramural departments and the involvement of their parent universities.

In particular he was concerned about the failure of extramural departments to attract educationally disadvantaged mature students into higher education, and the failure of universities generally to sustain strong community links.

Numbers of mature students currently attending each university could be counted almost on the fingers of one hand, he said. At present only one in 10 was studying part-time, and of these only one in 100 was taking a first degree.

Extramural departments appeared to be offering "rather nice samplers" of university work but indicating students should not be serious about studying.

A great opportunity was being lost.

Over the years, and as a result of DES intentions to create a national

continued on page 3.

letters to the editor

It is unusual for the BBC's programme planners to allow two successive periods of an hour-and-a-quarter for a documentary; but the two-and-a-half hours devoted last week to design on BBC2 amply justified the allocation. Despite the title, *Designs on Britain* was enough to confuse anyone and the subtitles enough to depress them. So were early sequences showing the demolition of the Triumph factory.

That was symptomatic of the British disease – the failure to recognize the crucial importance of design until it's too late, and then, when it is valued, concentrating on the packaging rather than the product. The annual exhibitions in any polytechnic or college of art confirm that our packaging is some of the best in the world. But while that is superb, the industrial design of the products, while admirable, is often insufficiently integrated with the technology and the marketing.

Designers talk about creativity but shudder at the prospect of close links with mechanical production engineers. Engineers are so untrained visually that they fail to see the necessity to themselves of imaginative solutions. It ought to be possible in a polytechnic – a place of many arts and many skills – to get all these people to talk and work together and there is some evidence in the polytechnic for which I am responsible that they are beginning to do so; but it is a long haul. One of the most lasting effects of any academic institution is to put people into compartments and train their minds so that they will stay there.

In the world of the arts and crafts, of design and technology, it is disastrous. Every made object has been designed by somebody, whether he or she knows it or not; design and technology are thus indissolubly linked. The professions concerned with design were not always so divided. Italian designers are trained in schools of architecture. Architects have historically been involved with the design of products as well as buildings – Adam, Mackintosh, Lethaby and many others. We now train them apart.

The greatest irony for us – repeated several times in the programmes – is that young designers trained in this country have to go abroad to find opportunities and be recognized. So there is nothing the matter with our skills. What we have failed to do, despite many efforts, is to bring design and manufacture together. We have the designers. So it must be the manufacturers, the company directors and accountants, who drag us down.

But there is no need for gloom. David Sweetman's programmes revealed a wealth of ideas, full of colour and efficiency and fun, that ought to enrich the world. For design as one of the Italian designers insisted, is the art of everyday. We are producing a rich and diverse world for everyman. That, if I remember rightly, was one of my own phrases in several contributions – made without preparation or scripts and therefore all the more serious! I am not alone in my concern. There are a lot of us around who care passionately about the shape and character and detail of our developing world. We will change things yet.

Patrick Nuttgens

The reform of student grants

Sir, – Rupert Bristow's article (*THES*, September 6) on student support is a timely reminder as hundreds of thousands of higher education students face a year of financial uncertainty. The decrease of the real value of the mandatory award by 17 per cent in comparison with its 1979 level, the abolition of the minimum award and the threat contained in the Fowler social security Green Paper of the denial of student entitlement to housing and supplementary benefits means that financial, not academic or educational, ability will determine who overcomes the hurdles to higher education.

All this, when last December Sir Keith Joseph promised to review the system of student financial support by the end of the Parliamentary session! It is clear that once loans were defeated in Cabinet in July, the Government did not have an alternative for student support.

With respect, Rupert Bristow has unwittingly fallen into the same trap as the Government – he realizes the current system of student financial support is in urgent need of reform – but beyond suggesting the setting up of a review committee he has little to put forward in the way of an alternative.

An alternative should not be based on the Government's pre-dictated terms of debate. An alternative should not shuffle around a given sum amongst the educationally "deserving" and "undeserving" defined solely with reference to the Government's economic priorities. A genuine alternative should start from recognition that the current system denies access to higher education to those without alternative sources of income, to women, to people with low incomes, people with disabilities, people with children and most particularly to those who have not had sufficient income to allow them to continue education beyond the age of 16.

Such an alternative therefore should not accept a pre-determined basis for student support commencing at 18 but should look to the age of 16 for attainment of a sufficient level of independence to allow participation in further education. Our objective must be to extend the narrow confines of our higher education system, not to see them as sacred and therefore immutable.

Rupert Bristow gives tacit acceptance to the concept of student loans in the student support system. He does so on the basis that the majority of EEC countries have mixed loan and grant systems. Nowhere, does he say why such a system might be desirable – indeed the mere fact that the majority has such systems does not mean that they are necesssrily a good thing. This in our opinion is not an argument for the introduction of student loans.

The main point, missed in the article, is that one of the most important decisions regarding student financial support to be taken for many years is currently being taken by the Department of Health and Social Security. It is suggested that students should no longer be eligible to claim housing and supplementary benefits and that the proposed review of student financial support will be responsible for any changes to student financing.

However, as Mr Bristow points out the suggested Department of Education and Science Review is nowhere in sight, which could leave students in the unenviable position of not being able to claim welfare benefits but not be compensated for the loss of them by the DES.

Yours faithfully,
VICKY PHILLIPS,
Vice President Welfare,
National Union of Students,
461 Holloway Road,
London N7 6LJ.

Sir Edward's letter

Sir, – In a report (*THES*, September 13), in which you refer to the need for universities to cooperate more fully with the press, you refer to Diana Warwick's address to the Standing Conference of University Information Officers. It is not clear whether your reporter Mr Flather is quoting Ms Warwick verbatim or is paraphrasing her speech or interpolating his own comments when he writes "Sir Edward wrote to *The Times* last week . . . to explain that Salford and Aston had been cut at least in part to give their new vice chancellors room for manoeuvre".

Sir Edward Parkes actually wrote: "It so happened that at about the time of the cuts Aston and Salford both acquired new and able vice chancellors. Partly as a result of the cuts themselves . . . and partly as a result of vigorous direction . . . ". I see no justification for your reporter's or perhaps Ms Warwick's rendering of the sense of Sir Edward's letter.

The irony is of course the greater in that Ms Warwick was addressing the Standing Conference of University Information Officers meeting in the University of Reading. I am left only with a question 'Why is truth sacrificed to news?' You, Sir, should at least attempt an honest answer – if only in the privacy of your office.

Yours sincerely,
S. R. BOSWORTH,
Registrar,
University of Salford.

Medical libraries

Sir, – Your article on the cash crisis facing the Medical Library of Edinburgh University (*THES*, August 30) is a timely warning of the problems facing the libraries of all the medical schools. *THES* readers will be only too aware of the pressures generally facing university libraries from a combination of cuts and above average inflation; but medical libraries are in an even more vulnerable position because of their historic links with the teaching hospitals.

The longer teaching year, the demands for long opening hours from hospital based staff and the fact that the library population will typically be at least doubled by NHS users places strains on service which can only be met by guaranteed recurrent funding above and beyond the level which the universities can themselves afford.

Support from the NHS varies from region to region from nothing to as much as 50 per cent of the medical library budget. Unless a coherent policy can be found, not only will journal subscriptions be eroded, but staff posts and by extension opening hours, will be lost to the point where clinical teaching is not properly supported.

Yours faithfully,
D. G. LAW
SCONUL Advisory Committee on Medical Materials.

Funding

Sir, – The report on "Eighteenth-century divisions of labour" (*THES*, September 13) inadvertently omitted all acknowledgement to the Economic and Social Research Council, which funded the research.

For the record: my thanks to the ESRC and to my indefatigable research assistant, Serena Kelly.

PENELOPE CORFIELD,
Royal Holloway and Bedford New College, University of London.

Doing porridge

Sir, – Like every other academic, I have always secretly cherished the dream of appearing in *The THES*. However, I'd fondly imagined that it would be for philosophy, not for porridge (*THES*, September 6).

I hope that I may elaborate a bit on the purpose of this "Nonny Tiffany diet". The point was to raise money for "Amandla", a cultural ensemble of South African refugees now based in Angola. They are in this country for a three-month tour. These talented and very courageous young performers see their show – which includes drama, music, dancing and poetry – as a positive contribution to the struggle for the liberation of the people of South Africa. I agree; hence the porridge. Further donations for this very worthwhile cause can be sent to me at the address below.

Yours faithfully,
Dr KATHERINE MORRIS,
Treasurer,
Oxford Anti-Apartheid Group,
86 Lonsdale Road,
Oxford OX2 7ER

Degrees boom

Sir, – It is with some regret and deep scepticism that I read your article ("Better degrees boom as hard work pays off," *THES*, August 30), which suggests that students in the universities are now more capable and hard-working "than ever" and thus obtaining a larger proportion of 1st and upper 2nd class degrees.

Those of us in the polytechnics are rather more aware that, in a period of financial stringency, an institution under threat must do its utmost to improve its image to the community and, most importantly, to its financiers.

A cynic like myself may claim that the most convenient method to heighten this prestige, given the absence of a national validating body, is to lower the threshold above which it awards 1st and 2nd class degrees. Thus the principle of self-validation may have more than just a marginal effect in securing the said "boom".

This of course bears no relation to the national standard of the degree, nor to the calibre of the student; it merely reflects the extent to which universities are prepared (and capable) to undermine the quality of their awards in an attempt to ensure financial solvency for the forthcoming years.

The distressing outcome of these actions is to exacerbate the binary divide and enhance the elitism already prevalent in these institutions.

The most sensible way forward, I consider, is to extend the concept of nationally validated degrees to all institutions of higher education, thus ensuring a uniform standard of degree and an end to the unnecessary and undesirable battle for prestige.

Yours faithfully,
G. GEORGIOU,
43, Hart Road,
St. Albans,
Herts.

De La Salle

Sir, – De La Salle resigned to its fate? (*THES*, September 6) Certainly not. The Action Support Group of this college has fought long and hard over the past three years to keep it open and will not concede defeat until the battle ends where it must, with the Secretary of State's decision on whether to withdraw approval for courses. National Advisory Body committee's recommendation of last week is certainly a setback, yet the final decision rests at ministerial level and Sir Keith Joseph must take account of the view of Voluntary Sector Consultative Council which supports the proposed merger with the Liverpool Institute. This is now the first real challenge to the VSCC.

Meanwhile in De La Salle, the dominant mood among those of us who have day-to-day responsibility for the education of students is one of anger rather than resignation.

Yours faithfully,
SUSAN H. ZLOSNIK,
and others,
The Action Support Group,
De La Salle College,
Middleton,
Manchester.

Programme

Sir, – Why have "degree courses" become "degree programmes"?

Yours faithfully,
ROBERT WALLS,
Information Officer,
Royal Holloway and Bedford New College, University of London.

Tito myth

Sir, – In my book *Tito's Flawed Legacy*, a reassessment of received Western opinion on contemporary Yugoslavia, I list a number of our compatriots who, for the last 40 years have helped to sustain the Titoist myth. These include F. B. Singleton, whom you selected to review the book (*THES*, September 6) and whose own reputation depends on discrediting my arguments. Mr. Singleton affirms that I am "a fervent – one might almost say, professional, anti-communist": I would say Mr. Singleton is a professional pro-Titoist and proud wearer of Yugoslav decorations.

Your readers may be interested in another anecdote involving Mr. Singleton, which has not yet been made public and which concerns the trial of the Belgrade scholars, which you reported last February. On the day of the verdict, the BBC Serbo-Croat service was told to broadcast a programme on Western reactions and appointed as its producer Comrade M. Samolov, a Yugoslav communist, formerly employed by the Yugoslav Radio (external service of Radio Belgrade). The lawyers for the defence, who had hoped Western support might sway the Yugoslav authorities handling the appeal, described the BBC programme as "a stab in the back". Comrade Samolov, having received dispatches from the BBC correspondents in the other Western capitals, chose Mr. Singleton to furnish the British reactions. There were, he said, two groups that cared: a defence committee, headed by left-wing MPs, including Mr. Eric Heffer, who were "friends of Yugoslavia", and another group, composed of Yugoslav emigrés and right-wingers "who operate through the *Daily Telegraph* which Nora Beloff writes for" and "have tried to make what I would consider political capital out of it (ie the trial)."

I appealed to Mr. Peter Fraenkel, controller of the East European Services of the BBC, to be allowed the right to defend myself against allegations that I was *exploiting the trial* of my friends and was, by implication, an enemy of Yugoslavia. When he refused, I asked the Minister of State, Mr. Malcolm Rifkind, why, at the expense of British taxpayers, professional communist propagandists, recruited from Radio Yugoslavia, should be entrusted with producing a BBC programme on men standing trial for defending our own concepts of freedom. Mr. Rifkind replied, on 22nd March, that "editorial responsibility for what is broadcast rests firmly with the BBC".

I then took up the matter with the chairman of the BBC, Mr. Stuart Young, who agreed to look into the matter but missed the point. In his reply to me, he suggested I was wrongly opposing the recruitment of BBC staff from inside Yugoslavia. On the contrary, at this very time, Mr. Oliver Morase (BBC/TV) and I are jointly commending a first-class candidate from Belgrade. My objection was exclusively to the use of a former staff member of Radio Yugoslavia to produce a BBC programme on the trials which her own government had mounted against the Belgrade scholars.

Sincerely,
NORA BELOFF
11 Belsize Road,
London NW6 4RX.

Letters for publication should arrive by Tuesday morning. They should be as short as possible and written on one side of the paper. The editor reserves the right to cut or amend them if necessary.

East–West talk stops here

Some enterprising student must now be considering a thesis on "The link between the Edinburgh Conversations and crises in East-West relations".

The annual informal meetings between British and Soviet experts, held under the auspices of Edinburgh University have been preceded by international tension three times in their five-year existence, resulting this week in their cancellation.

In 1982, the British team, headed by Edinburgh's principal, Dr John Burnett, went to Moscow shortly after the Soviet invasion of Afghanistan.

The following year, the university was criticized by the Government for going ahead with the meetings in Edinburgh following the shooting down of the South Korean airliner by the Soviet Union.

A week ago, however, the Soviet team pulled out of the Conversations, due to begin last Monday, as a result of the previous day's expulsion by Britain of 25 suspected Russian spies.

Dr Burnett has stressed that the invitation to the Soviet team, which includes Lt Gen K. Michailov of the USSR defence ministry, Dr, Michael Nenashev, editor-in-chief of the *Sovietskaye Rossiya* newspaper, and Professor Gennady Yanaev, deputy chairman of the Union of Soviet Friendship Societies,

"We at the university have in the past laid considerable importance on maintaining such contacts under academic auspices through times when the international political climate has been critical," he added pointedly.

Librarians 'should become ruthless'

by Adriana Caudrey

Sir Peter Swinnerton-Dyer, chairman of the University Grants Committee warned academic librarians this week that an imminent "information explosion" in the sciences will force them to become ruthlessly selective.

Addressing Information 85, an international conference in Bournemouth of 1,000 librarians and archivists, Sir Peter argued that university librarians could no longer be like "dragons", hoarding weighty tomes as if they were jewels. They should be classifying information, not entire documents.

Sir Peter was addressing the conference primarily in his role as chairman of the British Library's committee on research and development and as professor of mathematics at Cambridge University, where he used to be vice chancellor.

Speaking about his own subjects Sir Peter said: "Like most academics I moved from being a student to being an expert at 25. In my areas of interest there's 10 times as much to read as when I was an expert, and I am not even near retirement."

He said that proliferation of information was taking place both in the sciences and humanities, but that it was happening faster in the sciences because there the "frontiers of knowledge are actually being extended all the time".

An information explosion is expected in all sciences, he said, starting with chemistry. To prepare for this librarians should "manipulate information, break documents into bits and reorganize them to get an overview of the subject".

He said that as a temporary measure librarians could ensure that only material which was regularly consulted was available. Unless there was more careful selecting and classifying of information he said that academics would soon be swamped "by the pages of the increasing number of learned journals".

The conference, the first international one of its kind, was held jointly by the Association of Information Management, the Institute of Information Sciences, the Library Association, the Society of Archivists and the Standing Conference on National and University Libraries.

WEA 'near to financial collapse'

New statistics released this week show the Workers' Educational Association is facing a grave financial crisis, with several of its regional offices on the brink of bankruptcy.

The figures, compiled from returns made by the WEA's 15 English districts, reveal that every area is facing a projected shortfall in cash over the next 12 months, an unprecedented situation for the WEA.

The total projected deficit for the next financial year amounts to £285,000, and ranges from an estimated shortfall of almost £7,000 in one district to £35,000 in the worst affected region.

The statistics are now to be forwarded to Sir Keith Joseph, Secretary of State for Education, to support the WEA's claim that a three-year reduction in its grant aid from government, plus an enormous leap in the amount of cash university extramural departments have clawed back for provision of joint courses, have had a dramatic effect on the association's financial resources.

Now in difficult financial circumstances themselves, the universities have recouped £112, 861 this year.

Down the workers, page 12.

Poly will open despite unions' protest strike

Urgent talks are being held aimed at protecting Liverpool Polytechnic from the double threat of indefinite strike action and financial collapse which are expected to hit the rest of the city.

Mr John McKenzie, the polytechnic rector, was this week confident that the threatened industrial action by the city's workforce would not prevent the polytechnic from opening for the start of the new term in 10 days' time.

"Negotiations are under way with the various unions, in particular the manual workers unions," he said. "These suggest that the poly will be regarded as a special case and that after a symbolic strike of one or two days, the poly will be opened to all students."

As well as trying to shore the polytechnic against long-term strike action, Mr McKenzie is also seeking to ensure that its finances will not run dry if the city council becomes insolvent, as has been predicted.

Early next week he is due to meet Mr Christopher Ball, chairman of the board of the National Advisory Body, Dr Edwin Kerr, chief officer of the Council for National Academic Awards, and the senior officials at the Department of Education and Science.

A number of options will be considered, all aimed at safeguarding the money which the polytechnic receives from the Advanced Further Education Pool, amid fears that it may be diverted by the city council and used to sustain other basic services in the event of an emergency.

Controversy has broken out over whether the pool money – some £20 million – is guaranteed to the polytechnic. The problem arises because the money is not paid direct to the polytechnic, but is channelled through the council.

Meanwhile, Mr Peter Vean, Natfhe regional officer for Merseyside, is concerned about the plight of some 1,500 members of the lecturers' union at the polytechnic and at further education colleges in Liverpool. All of them were threatened, along with the entire council workforce, with protective redundancy notices.

Now the local Natfhe branches have been asked to consider joining next week's action. Mr Vean said: "There is no way Natfhe will stand by and let the poly sink."

V-cs face new pay challenge

by David Jobbins

Vice chancellors face a new challenge over low pay in the universities even before most groups of staff have settled in the 1985 salaries round.

University manual workers are preparing to model their claim for next year on the offer which is likely to be accepted by local government manual workers in what is likely to be the first breach of the 3 per cent pay factor set by ministers.

The offer to local government manual workers is worth 8 per cent overall and includes a £6 a week rise for all.

But the key factor for university negotiators is the proposed abolition of the two lowest salary grades. In local government 52 per cent are on the two grades which will disappear, compared with about 60 per cent on the two lowest in the universities.

The employers' side has already been warned in unofficial discussions that the unions' claim is likely to mirror the offer to local government as a further step in the fight to eradicate low pay in the universities.

Union leaders point out that university employees, unlike their counterparts in local government do not benefit from bonus schemes and other ways of boosting pay.

This year the employers were prepared to regard manual workers as a special case, settling on a deal worth up to 6.7 per cent for the lowest paid. Now the unions are looking for further progress and are not going to be put off by warnings that a similar deal can only be financed through job losses.

Extramural rap from DES

Continued from front page

system, the strong links between universities and their communities had been diluted.

Major adaptations would be necessary and extramural departments would need to persuade their academic colleagues. It was not feasible for extramural departments to attempt the task alone. "But it would be nice to hear them having a go, and nice to hear loud arguments within universities."

Other issues of concern included the dominant role of arts and social sciences in extramural teaching. Mr Thompson also spotlighted the high only 36 per cent of part-time academic staff came from within universities.

He was also sceptical of the role of the departments in provision of updating programmes to industry, and criticized of the general administration of these programmes by universities. PICKUP, the programme of professional, industrial and commercial updating courses sponsored by the DES, had worked well within university departments, he said.

Referring to a recent visit to an unnamed American university, Mr Thompson said he had been impressed to find a continuing education unit at

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THES

DON'S DIARY

THURSDAY

Holidays over, work begins. Or so it used to be. Our son arrives home after a camping holiday and announces that he's no longer signing on. "It's demeaning," he says. "It's terrible. Kids, old people, couples with babies . . ." "What will you do?" I say. "Something."

His sister, after a year on a Manpower Services Commission project, working two and a half days for £47 a week, is back on the dole, and applying for community service jobs. She reports that they no longer tell applicants when a post has been filled; they can't afford the postage for the hundreds they turn down. A friend tells me that her son, an Oxford graduate in classics, after four years on the dole is now earning an equivalent sum by freelance writing for computer magazines.

When AIDS begins to hit the great and famous, money is suddenly made available to fight it. I wonder if a similar shift will occur as the children of Tory ministers, those who don't go straight into merchant banking, begin to succumb to this insidious blight of youth unemployment. Will funds suddenly be diverted from defence, and the information technology which supports it, to teaching, the social services, the arts – all those non-productive, unprofitable activities which in the past have claimed the idealism and talent of the young? "I think they may be a lost generation," my friend says. She is talking about her children, and about mine.

FRIDAY

Disguised as a freelance writer, I attend a press briefing by the Medical Research Council on a mortality study of the workforce at Harwell, Dounreay, Winfrith, and other nuclear research centres. The study is inconclusive, but nuclear talk at the buffet lunch is a fascinating revelation of the thinking that goes on at the top.

"Our real problem has always been the media," says one official. "As soon as they see the word 'leukaemia', it's like a red flag." Indeed, the death rate from leukaemia in the nuclear work force is twice the national average.

Primed by two glasses of excellent red wine, I ask the gentleman from Harwell what the chief argument for nuclear power is, in view of the risks. "The country couldn't have survived the coal strike otherwise," he says. For "the country," shall we read "the government of the day?"

SATURDAY

Country pleasures. We've been in London for the whole of this cold, wet summer, ideal for sitting at one's desk, since there's been absolutely no temptation to do anything else. No rain today, so we decide to drive to Marlow, to see Shelley's house and walk along the river. The house is a row of four neo-Gothic cottages in deteriorating condition, right on the main road; one of the cottages is for sale, at £75,000.

In 1817 Claire Clairmont took shelter here with Shelley and Mary, and the infant they called Alba after its absent father, nicknamed "Albé" for "L. B.", or Lord Byron. Mary, Claire's step-sister, was pregnant with her second child by Shelley. As they sat around in the evenings reading Rousseau, Shelley fell in love with Claire.

We stroll down to the river, where a cricket match is in progress, and a flower show; there are picnicking families on the wide lawns, and elderly couples in deck chairs, and a few youths with punk haircuts. The skies are grey, but we walk to Temple Lock, past fields and meadows, horses and cows, and a sign reading "This picnic area is not a dog's toilet", though the cows, being nonliterate, have left generous evidence of their presence along the footpath.

On the pleasure craft they are drinking whisky; on the tour boats, tea in paper cups. It's all incredibly innocent, and prosperous, and English. We don't see a single black or Asian face, though back on the High Street the house Shelley's friend Peacock lived in is now an Indian Tandoori restaurant, and there is a busy Chinese takeaway. The sun comes out at six o'clock – how wonderful to feel that unfamiliar warmth on one's face and bare arms.

Back at home, I find a letter from a civil liberties group at the university where my younger daughter was briefly a student, until requested to leave after a student occupation, thus joining the immortal ranks of Shelley, and a few others. They are considering mounting a civil liberties campaign, together with the student union and the Association of University Teachers, directed at university disciplinary procedures. My own patient research into this episode has yielded very little hard information, apart from the suspicion, amounting to a certainty, that the Special Branch was involved, and the interesting fact that the registrar is a Freemason. I will certainly cooperate in any way I can.

SUNDAY

I read in the Sunday paper that the British prison population has been increased by 5,400 in the past nine months; it appears that we are the most punitive society in Western Europe. I am not at all surprised, since I have been doing a count of the English poets who served time in prison, chiefly for political reasons, including Wyatt, D'Avenant, Surrey and Raleigh (who were both executed, of course), Donne, Bunyan, Leigh Hunt, Wilde.

My friend's son has spent eight hours in the cells for painting Hiroshima shadows on the pavement in Reading; my daughter has been detained overnight at least twice on public order charges, later dropped or dismissed. It was the American Thoreau who said: "Under a government which imprisons any unjustly, the true place for a just man is also a prison."

MONDAY

Thoughts of the new term. The salaries of two and a half members of our department, including my own, are now subsidized by the department's share of fees paid by American students who come for one or two terms to sample British university wares. This year there will be 75 American students taking courses in our department, with about 30 home students in each year enrolled for honours degrees.

I believe these figures can be matched at most other British universities, and wonder what form of genteel prostitution we are currently engaged in, what the long-term consequences will be, and whose fault it is, theirs or ours.

TUESDAY

A letter to my husband from a Japanese student who has been accepted as a research associate for the coming year.

Dear Professor,

I should have answered your kindhearted letter soon even if I had been busy. I'm very sorry about it.

The summer vacation in Britain will be a long period of three months, but that in Japan is about 40 days. Summer in England will be very comfortable, but that in Japan is unfavourable; the temperature remains about 25°C even at dawn, in the coolest time of the day, and it rises beyond 35°C in the daytime.

I have three aims in studying at University of London, to develop my poor oral English, to be supervised on the Restoration and Sentimental Comedies, faithfully to have a total survey of the literature, and to appreciate as many genuine live dramas as possible.

In next spring when I will be accustomed to London life, I'm looking forward to seeing your Worship at Queen Mary College after calling a greeting on the phone.

Sincerely yours, etc.

Cheered by this communication from a distant world, I feel better prepared to face the uncertain future, and look forward to meeting Mr Hayakawa in the spring.

Judith Chernaik

The author is lecturer in English at Queen Mary College, University of London.

Karen Gold reports on the Browne inquiry into PNL

How the director fell out with ILEA

The Browne inquiry was set up by the Inner London Education Authority last December, in the wake of a very public row between the authority and the polytechnic's director Dr David MacDowall.

Dr MacDowall announced his early retirement, saying ILEA was putting him under duress to act against the National Front member and PNL philosophy student Mr Patrick Harrington about the latter's allegedly racist remarks made on a television programme. ILEA denied unfair intervention. Dr MacDowall said the Government ought to establish an inquiry which would include looking at ILEA intereference. ILEA got in first by announcing its own.

The inquiry's terms of reference were to look at the management of the polytechnic, going back in time as far as was thought necessary. In fact the report goes back little further than the sequence of disruption and litigation involving Mr Harrington.

He had been spotted in mid-1983 by fellow students in a picture of National Front activists at nearby Chapel Market in Islington. But little happened until March 1984, when a student picket prevented him from attending a lecture.

A series of demonstrations followed. Harrington gained a High Court injunction ordering him not to be hindered in attending lectures. Students on pickets were photographed by a friend of Harrington's, and the polytechnic ordered to identify them. Polytechnic staff were brought into court proceedings to identify the students.

Harrington's second year exams were postponed to September, when he passed them. Demonstrations began again in November and students were brought to court for being in contempt of the injunction banning them from barring Harrington's access to the poly.

Dr MacDowall then agreed to take a year's sabbatical (to end in December 1985) followed by early retirement. Dr John Beishon, director of the Polytechnic of the South Bank, was appointed acting director for a year.

An agreement, accepted covertly at least by both the students and Mr Harrington followed: he was given access to specific buildings only. The polytechnic established a new disciplinary procedure and drafted an anti-racism complaints procedure. Some protests continued, but the barricades came down from outside the poly and Mr Harrington was allowed to take his finals.

The polytechnic established a new disciplinary procedure and drafted an anti-racism complaints procedure. Some protests continued, but the barricades came down from outside the poly and Mr Harrington was allowed to take his finals.

The costs of the litigation for the poly alone are expected to reach £190,000. Applications to PNL this year have been unusually closely scanned.

Strained relations under scrutiny

The committee of inquiry into the Polytechnic of North London was not an investigation into standards, nor a judicial inquiry into events attracting public attention (largely, but not entirely, in 1983/84 the affair of National Front student Patrick Harrington), its report insists.

The committee came in to look at the functioning of the poly in its relationship with outside bodies – in particular HM Inspectorate and the National Advisory Body – and its internal organization, including its dealings with Mr Harrington.

Once inside, the report says, the committee found the same issues arising again and again. Looking at the routine effectiveness of management and organization, it found material to question decision-making, attitudes inside the poly to outside bodies, and organizations.

Directorate: The report says the committee started out with an assumption that the key to a functioning institution is a clear centre of authority. Although management and director are not synonymous, "the director is where one expects the centre to be".

But at PNL, it continues, there was a widespread sense between staff and management of "them and us". Some staff "speak of past and present elements of top management as veritable bogeymen. Writing early in 1985 (ie just after the director Dr David MacDowall took early retirement) too many staff speak of top management as not only remote but also incomprehensible and unpredictable".

Staff unions had found the management inexperienced in dealing with unions. Members of the directorate were sometimes in open conflict, the committee was told. In dealing with High Court orders to identify students picketing Mr Harrington, instead of open discussion the director summoned staff to identify students. The result was to widen the gap dramatically between staff and directorate", the report says.

There was not just lack of clarity about management structures or unclear delegation: "It appears to the committee that there must have been some lack of appreciation at the top (director, directorate and court) of what management has to deliver", the report says.

Court of governors: The committee includes the court in the management structure and its failings. From time to time the court assumed too much of the director's powers in detailed management, the report says. Many members are committed and long-serving, but few are known to staff or know the polytechnic well. "Members of staff see it as reactive, faction-ridden and obstructive", the report says.

Industry, commerce and the professions are under-represented; so are students and non-teaching staff. Agendas are massive, yet not long enough for court members to include items they want to discuss. Support for the director within the court could not be predicted, the committee was told. All this must have weakened the court.

Staff: The report paints a picture of staff who are divided, frustrated, underrepresented in academic structures, and in some cases washing their hands of the whole business: "people had a justifiable sense of a power vacuum, but they also felt free to dissociate themselves not only from the consequences of it but from taking necessary action themselves".

Academic structures have been changed by the acting director Dr John Beishon but the staff have to make them work, the report says. The committee's meeting with the poly's academic standards committee "suggested that, at the level of the whole institution, the necessary procedures for monitoring (quality) were not yet adequately developed and the required analytical thinking about quality was not yet completed".

At least one member of staff was supporting student protesters against Harrington which disrupted the polytechnic, the report says. But it emphasizes that PNL staff, as in other institutions, run effective courses, attract research and consultancy funding, and are positively linked to the local community.

Students: The gap between ordinary students and the students' union was wider at PNL than in other institutions, although the latter achieved office on a vote which was – though small – comparable with other institutions.

They did not know how to get action from the poly on matters of legitimate concern; many were uninformed about student unions, and a considerable number – including some who had taken part in demonstrations against Mr Harrington – uninformed or misinformed about the facts and issues.

Members of the students' union made no secret of their politics in meeting the committee, but "beneath the rhetoric and a certain enjoyment of power is an awareness of their role within the institution and some frustration at their non-relationship with the management".

Harrington: The Harrington affair is tagged on to almost the end of the report. Had the goodwill of staff and students in the institution been mobilized by the management, it might never have gone as far as the courts and demonstrations, the report says. It is hard to understand why the identification of Harrington as an NF member was not taken more seriously by the poly in the summer of 1983

But the report emphasizes that most if not all of it could have happened anywhere: "No student body would be likely to remain passive in such circumstances. No one who was not involved can be sure what they would have done".

Not even the committee: "The committee could not avoid the question, is it right that an entire institution should suffer from the presence of one person? Or, put another way, should in such a case the right of the one individual be the overriding consideration? While we all agreed on the principle of the liberal institution, our pragmatic responses to these questions ranged from 'yes, what is the alternative?' to a highly experienced 'preferably not'".

Browne study

The inquiry was chaired by Miss Sheila Browne, (top) principal of Newnham College, Cambridge, and former senior chief inspector of HM Inspectorate. Her fellow members were Professor Ralf Dahrendorf, (middle) former director of the London School of Economics, and Mr Clive Jenkins, (bottom) general secretary of the Association of Scientif, Technical and Managerial Staffs. The committee's adviser was Mr Lincoln Crawford, a barrister and commissioner on the Commission for Racial Equality.

The inquiry received evidence from 148 individuals, groups or organizations. The Department of Education and Science did not submit any evidence, although HM Inspectorate did. The committee members visited the polytechnic on 15 days and held more than 100 formal and informal meetings there and elsewhere.

But the report emphasizes the inquiry's limitations: the committee was largely dependent on written evidence; could not stretch to all PNL's £16.5 million, 1,000 staff and 5,000 student operation; and was looking at the poly's structure and management after changes which made it rather different from how it was operating at the peak of public attention.

ANTI THESS

Wanted: a new direction

As the Browne report on the Polytechnic of North London goes to press, so do the readvertisements for the poly's new director. The report calls for a managerial superstar to take over, with charm, poise, tact, discretion, good contacts, etc. Clearly most of the 50 original applicants for the directorship did not strike the selection committee that way. It decided to readvertise, retaining three possible candidates on the list.

The lucky three? Sunderland Polytechnic's deputy director Ray Cowell, Bradford University professor and well-known radical Hilary Rose, and Christopher Price, poly person, politician, journalist and mastermind of PNL's current public relations revival.

Meanwhile, for those who think there's no such thing as coincidence in politics, Dr David Owen the Social Democratic Party leader is to launch an SDP campaign on free speech on the campuses later this year. At PNL.

All right Jack, as we were

An historic decision by the University of Ulster. No Union Jack will fly at its Jordanstown campus.

Earlier this year the local Newtownabbey council condemned the campus, formerly Ulster Polytechnic, for not flying the flag. The Lord Mayor was sent to demand an explanation.

The poly, most of whose 5,000 students are Catholic, had a policy of flying no flag. Now the university's general purposes committee, after lengthy debate, has decided that the Union Jack should be flown as in the past only at the headquarters campus at Coleraine – on special dates such as the Queen's birthday and July 12, the anniversary of the Battle of the Boyne.

Association of University Teachers: 1. Conservative Party: 0. The Tories are this year requiring a £5 fee from all visitors to their conference, they say necessary to cover security costs. A letter – with fee enclosed – has now gone to Conservative Central Office from AUT deputy general secretary John Akker, saying that the union was of course prepared to pay for security vetting. But it must have an assurance that, as the Government's legislation on trade union donations to political purposes requires, not a penny of his members' money must go into Tory party coffers.

King Solomon's sandwich wisdom

A man of many talents, the Rev. Canon Dr George Tolley. Former Sheffield Poly director, unpaid Methodist minister, now big in the Manpower Services Commission . . . and discoverer of the earliest known reference to sandwich education. It comes, he told a conference on cooperative education, in the Old Testament:

"And King Solomon raised a levy out of all Israel; and the levy was 30,000 men. And he sent them to Lebanon ten thousand a month, by courses: a month they were in Lebanon and two months at home". (*I Kings 5*).

Proof that nowhere is safe from fast food chains comes from America's Purdue University. John Vellinger, a sophomore student, has won a NASA competition to design a space shuttle experiment. He will be putting two dozen eggs in orbit next year, to find out whether chicken embryos can survive the rigours of weightlessness.

His experiment is sponsored by

Business methods 'harm universities'

by John Walshe

It is probably impossible to make universities like businesses without severely damaging their core constitution and it would be wrong even to try, Sir Peter Froggatt, vice chancellor of Queen's University, Belfast, said last week.

There was a simplistic notion that if universities were made like businesses then something magical would happen in society, he told a conference in Ennis, Co. Clare.

But governments seemed to be flirting with the idea – or, to be exact, flirting with minor changes to make universities more businesslike.

The British Government wanted to break staff security of tenure, make the vice chancellor chief executive, introduce performance indicators, managers, budgetary units, and corporate plans. It wanted a university council which would act like a board of directors. It also wanted to see universities raise private capital if necessary through capital markets and it openly favoured a general dogma of privatization.

Sir Peter told the conference organized by the International Association of Consultants in Higher Education Institutions that the diffusion of central power in the university hierarchy was not understood by businessmen because it was anathema to their own model.

But the whole university machinery was ideally suited to allow staff to teach, to research, to debate, and to publish – in fact to conduct their contractual activities – without let or hindrance except the laws of the land, and with at best minimal direction from their employer.

"Academic freedom may have a self-indulgent, even a farcical side, but it is an important if expensive cornerstone in the edifice of civilization," he said in a paper on university-industry linkages.

Sir Peter said that if it were wrong to make a university like a business it was certainly wrong to make a business like a university: the business would in any event be bankrupt in a few months.

There were therefore two choices for enhanced collaboration – build on what was done now or look for some new corporate structure in which both a university and a business could come together in a way which could most competitively exploit their assets.

An example was a university technology centre which Queen's planned to set up shortly.

The centre would be largely removed from the traditional university clutches. It would have a chief executive who would not have tenure, an executive group like a board of directors, an on-line corporate management structure and a professional financial manager.

A review of European higher education-industry initiatives was given by Mr Guido Declercq, a former general administrator of the Roman Catholic University of Leuven, Belgium and now a leading investment banker.

He said that as far as employment was concerned European science parks up to now could not boast extraordinary results. The Oxford Instruments Group with more than 1,000 employed was still the great exception.

He suggested that in many cases the university-industry link was more wishful thinking than real. What were called research parks were in many cases rather technology parks, accommodating companies engaged in the commercial application of high technology, with occasionally academic involvement, and where also production, sales and servicing was allowed. The real university spin-offs were often few and far between.

Jarratt calls for creative planning

by Olga Wojtas
Scottish correspondent

Sir Alex Jarratt, who chaired the recent efficiency inquiry into the universities, has warned institutions that they ignore his committee's report at their peril.

Sir Alex, speaking at the Conference on University Purchasing at Heriot Watt University, said the report came down firmly in favour of universities as individual corporate bodies managing their own interests and their own futures.

But while the Jarratt committee found some broadly stated objectives and aims in the six universities it investigated, it found little long-term planning and insufficient consideration of priorities and options.

The universities were undergoing a period of change, and change must be managed. "It's better to manage it oneself than to leave others to do it for you, or hope like Micawber that something will turn up."

Some people asked how it was possible to plan when the external environment was so uncertain, and the committee had met that plea in part by urging the Government and the University Grants Committee to "stop chopping and changing" funding.

But Sir Alex stressed that it was during periods of uncertainty that planning was vital. "When the going's good you can get by fairly confidently without too much planning. It was also suggested that planning stifles creativity but that's a nonsense. Good planning is itself a creative activity."

And if a university failed to plan its own future, the prospect for academic creativity within it must be impaired, he warned.

The report had been wrongly accused of striking at academic freedom. "One of the biggest risks to academic freedom lies in universities being incapable of marshalling their own resources to their own academic objectives."

The committee had also been accused of proposing the imposition of industrial management on the universities. "Frankly, this is rubbish. Any organization which involves bringing together people, buildings and services should be concerned about how it uses these resources to achieve its purposes. There are not different systems of management for different types of organization."

Participation and consensus were essential in the build-up to a decision, said Sir Alex, but in any successful decision-making structure, the ultimate responsibility must lie with one person or one body.

In the universities, this must be the court, and although in constitutional theory this was already supposed to be the case, in practice it was not.

Courts must be made up of well-qualified people, particularly lay members. "One sure way of attracting them is to ensure the work they're asked to do is worthy of the time they're asked to devote to it." The court must therefore be concerned only with "appropriate and important issues," and there should be a planning and resources committee of strictly limited size, with both academic and lay members who would integrate academic, financial and physical planning.

"It's easy to get lost in theoretical debate about centralization and decentralization. Most organizations I know have elements of both," he said. It was crucial for universities to have a clear and widely disseminated policy statement spelling out responsibilities and accountabilities.

Sir Alex added that he was struck by the number of people who thought a change of government would improve the universities' position. Any funding changes were likely to benefit other sectors such as the health service or housing. "There are very few votes in universities. It would be most ill-advised to think: 'If only we can get rid of her, it will be different.'"

Women to keep us informed

The appointment of the first women to chair the Standing Conference of University Information Officers means it now has an all-woman team of officers.

They are (left to right) Julia Thomas of Birmingham University, secretary; Fiona Selkirk, information and publicity officer at Glasgow University, chairman; and Beverley Cullen, Hull University's information officer, treasurer.

Support for single social work qualification

by Felicity Jones

The Central Council for Education and Training in Social Work found broad support for a single award in social work in its national consultation exercise.

But the one award to replace the Certificate of Qualification in Social Work and the Certificate in Social Services would involve more practical experience for the college-based route and increased breadth of learning for the employment-based route.

The consultation findings were presented to a special meeting of the council in Harrogate this week, at which a final decision was expected to be made.

The Committee of Vice Chancellors and Principals feared that the current moves to close social work departments would find support in the council's proposals.

"Clients are well served by the university involvement in social work education," the CVCP said. The ance of this involvement in the light of the current University Grants Committee. No one wants to pull out of social work training, but we may well be forced to."

The maintained sector also feared the threat to social work training as a result of the planned 20 per cent cut in category I courses for 1987. Concern was expressed about the need for training to keep in step with rising standards in other professions.

The Association of University Teachers said there should be no lowering of standards below the current CQSW level and stated "it believes firmly that standards should be raised".

The Council for National Academic Awards said social work as a graduate profession should be encouraged in accord with graduate entry into comparable professions in other countries. It called on the council to state its aims and consider the consequences for training in this direction.

award's credibility would be seriously jeopardized if all the courses were not graded as advanced further education within Department of Education and Science regulations.

The Association of Principals of Colleges wanted to see the CSS equivalent route funded under the advanced further education pool and said: "Unless the CSS is resourced on a national and equitable basis you cannot in good faith have a single award."

A clear definition of the kinds of skills needed to qualify for a single award in social work would also be required before a decision was taken. There should be at least two routes into the new award and a belief that there should be a broad variety of patterns of provision of social work education and training.

There was agreement that the period before qualification should be extended but this should not undermine the resourcing of existing prog-

Strikers back their fellow lecturer

by David Jobbins

A London college lecturer has been suspended without being given a chance to defend himself and may lose his job, his colleagues claimed this week.

Members of the National Association of Teachers in Further and Higher Education at Southwark College struck for one day in protest at the suspension of Mr Jan Golab, a lecturer in production and maintenance.

A governors' hearing had to be abandoned because too few turned up to consider his case. But the Inner London Education Authority has ordered a tribunal hearing.

Mr Golab joined the staff two years ago, but his probationary period has been extended three times. Between June 1984 and May 1985 he was inspected four times before an ILEA inspector recommended his employment should terminate on August 31, a view supported by college principal Mr John Baillie, a former member of the Natfhe national executive.

But Natfhe members at the college say that no reason for the suspension was given and their threat of strike action has been endorsed by the national executive.

Branch secretary Mr Ron Stringer said: "Everyone who works at the college is aware that Jan has had no opportunity to answer the charges against him and they are saying if Jan loses now, who will lose next?"

The ILEA said Mr Golab had been kept fully informed throughout, and Mr Baillie denied suggestions that he had not spoken with Mr Golab.

ILEA sources said there was no connection between the recommendation that Mr Golab should lose his job and in earlier disciplinary offence which was dealt with by a warning letter and the first extension of probation.

Mr Golab said: "I would have thought an education authority which boasts of its high standard of labour relations would be the last employer to adopt this unprecedented course of action. In a few weeks' time I may be on the dole and I have no idea why."

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Prison queue for OU degrees

by Carmel McQuaid

Prisoners in Northern Ireland are opting for Open University degree courses on a remarkable scale – with an uptake over 10 times higher, proportionately, than in Scotland, England and Wales.

The province's four detention centres now have 103 undergraduates and two postgraduate students among their 2,000 inmates (5 per cent), compared with 176 among the 47,000 prisoners elsewhere in the UK (0.4 per cent).

Ulster detainees also have a success rate far ahead of the average, with 66 students last year gaining 17 distinctions. Says Diana Purcell, the OU Northern Ireland senior counsellor: "By any standard this was an extraordinary achievement, which is the more remarkable when we consider that the students had little or no academic background."

So far four have graduated in prison and three more hope to complete their course this year. Nine, on release, have gone on to full-time higher education. Of these, two are to begin a PhD in October; one, an electrician's apprentice when "lifted", will study the history of art at an English university, the other, who had never had a job, will read Irish history at Cambridge.

"Northern Ireland has an unusual prison population," Diana Purcell explains. "They tend to be young, in their late 20s, to be politically and economically aware. Their crime was politically motivated and in a different environment they would not have fallen foul of the law.

"They have a very realistic approach to the future. With rampant unemployment, they know it is going to be difficult to get a job and prison is giving them a chance to get started towards a qualification."

The number of OU students in Ulster prisons has been climbing steadily since the scheme got off the ground in 1977 with six undergraduates.

Of this year's two postgraduate students, one is taking computer science, the other working on a thesis on geological faults in the Sudan – relying totally for his research on satellite pictures.

The project is regulated and sustained entirely by the Northern Ireland Office, which has so far paid £30,000 for fees, books and study kits. The office selects students, who must first show they can cope with the level of study. They are also required to be serving a prison term long enough to complete two modules.

Advice on course choice is provided by the OU. Technology, science and social science prove the most popular disciplines.

Impressed by the interest Ulster prisoners have shown, the Home Office has invited the tutor who launched the project to go to London and outline exactly how the material had been introduced – in the hope of eliciting a similar response elsewhere.

The Open University in Belfast has also been asked to extend its facilities to six prisons in the republic. In the first year of the project the Department of Justice has paid the higher overseas tuition fee for 29 students, half of whom are political convicts in Port Laoise. With 30 volunteering for the 1986 session, the high uptake created in the Ulster prisons seems all set to be repeated.

Hello and welcome to Professor Wastebasket

by Olga Wojtas
Scottish Correspondent

Edinburgh University this week held a press conference to introduce its new "professor of wastebasket studies". Dr Robert Morris, more properly described as the first holder of the Koestler chair of parapsychology, explained that the subject "has been a bit of a wastebasket – the study of what's left out."

There is controversy over the academic credibility of parapsychology, but Edinburgh principal Dr John Burnett stressed that the court and senate had been unanimous in accepting the bequest from the writer Arthur Koestler and his wife Cynthia, who committed suicide together in 1982, to establish Britain's first chair of parapsychology.

Dr Morris, a psychologist, is currently senior research scientist in the school of computer and information science at Syracuse University in the United States, and will take up his Edinburgh post on December 1.

He refused, to the disappointment of the popular press, to denounce Yuri Geller as a fraud, or to attack the local spiritualist church. He saw parapsychology as "an interdisciplinary problem area, not a belief system."

He saw potential links between his own discipline and sociology, anthropology, physics, biology and mathematics. He added that he hopes on occasion to involve other universities in his unit's research, abroad as well as in Britain, and he believes it is important to keep an open mind on the causes of apparent psychical phenomena. Some may have perfectly ordinary explanations, while others may need detailed, long-term scientific exploration.

Parapsychological claims outside the laboratory have been difficult to examine, since by their nature they tend to involve spontaneous experiences, he said. There have been problems even in laboratory research, with controversy over how to conduct and interpret experiments, the possibility of "undetected participant fraud or experimenter misconduct", and the fact that laboratories were not in general "conducive to complex human experiences".

There had been progress, however, with researchers learning a considerable amount "about how we can mislead ourselves or be misled by others".

A crucial area of the new unit's early work will be to develop and disseminate information on this, said Dr Morris. Although people were frequently told they could easily be misled into thinking a psychic event had occurred, this message was more easily understood if they had concrete guidelines for detecting it in themselves and others.

The publicity surrounding the new chair was likely to arouse more interest in parapsychology, at least

Dr Robert Morris with a bust of Arthur Koestler.

temporarily, and this was important for people not to overreact and start seeing evidence for psychic functioning in every coincidence they noticed.

It was also surprisingly easy to fake psychic ability, and people should therefore be aware of the general strategies used. "Much exploitation is done by taking advantage of members of the media who may not be conversant with what is involved," he added.

And in future, the Edinburgh research group was likely to seek anecdotal material from the public, and he would like this to come from "sophisticated observers".

One potential research project would be exploring techniques said to develop or enhance psychic ability. Even if no evidence of psychic functioning were found, it should produce information on the impact of self-help and mental development techniques.

Emphasis on quality

Brunel University has launched an initiative to promote industrial competition by trainee engineers in the important skills of quality control and product inspection.

A centre in manufacturing metrology was opened this week by Mr John Butcher, the Under-Secretary of State for Industry, who noted that the initiative showed the value of close links between university and business – a theme close to the Government's heart.

The centre is being backed by £100,000 worth of computing and manufacturing equipment from Hewlett Packard Ltd plus an endowment to appoint a professor in manufacturing metrology for at least five years.

Brunel has now launched a £1.8m appeal to raise fresh funds from industry to develop the centre which aims to promote the research, education, and training of engineers in metrology, covering all the skills needed for measuring, monitoring, and controlling the production process.

The university hopes to have six academics linked to the centre eventually. A single lecturer is currently in post. The centre will offer introductory two-term courses for undergraduate technology students, a part-time MSc for industrial placements starting in 1987, and a more general manufacturing part-time MSc course beginning next year.

Media studies link up

Manchester University has just consolidated its increasing interest in the media by setting up a new board for media studies linking work done by more than 20 departments from seven faculties ranging from agricultural economics to comparative religion.

The university has also just enrolled 12 students on a new master's of education degree which begins next month. It is aimed at home students who want to develop their understanding of how the media "stimulates, assaults, frightens and excites" people.

Manchester already plays host to the European Institute for the Media, founded jointly with the European Cultural Foundation, and runs Manchester University Television, the production arm of the audio-visual department which runs editing suites and film studios.

Mr Philip Radcliffe, director of communications, reports that interest in media studies has been growing steadily over the past decade and that it was high time to link all the different activities in the field. This ranges from studies of the Milk Marketing Board's campaigns by agricultural economists to a study of religious coverage on television carried out by comparative religion lecturers. The departments of government, law, and sociology have obvious interests and the science faculty has been researching the public acceptance of new technologies.

Woman to head computing department

Plymouth Polytechnic has just appointed its first woman head of department following a reorganization. Dr Patricia Pearce is to head a strengthened computing department which will comprise 12 staff and offer a BSc in computing and informatics.

Plymouth is keen to develop computing as a major interest following recent grants under the "switch" programme and the National Advisory Body information technology programme. A separate mathematics and statistics department is to be headed by Dr Phil Dyke. The polytechnic is also launching a new geological science department under Professor Malcolm Hart.

Results in brief

1,000 firsts

First-class honours are up by 19 per cent in polytechnics and Scottish central institutions this year, breaking the 1,000 barrier for the first time. Statistics published this week by the Committee of Directors of Polytechnics showed that a total of 1,165 students were awarded firsts, compared with 949 last year. Included among them are 277 mature students, an increase of 75 per cent.

Seeing stars

Astronomers from the University of Kent have become the first to measure the infrared thermal radiation emitted from the icy dust cloud surrounding Halley's Comet. Using the United Kingdom's infrared telescope in Hawaii, Dr John Zarnecki and Professor Tony McDonnell beat their American colleagues to the discovery by a mere 24 hours.

Course approval

Sir Keith Joseph, Secretary of State for Education and Science, this week accepted the first formal recommendation of the Council for Accreditation of Teacher Education in approving teacher training courses at Exeter University.

Sandwich pack

The Open University is to run sandwich workshops for industrial training managers to help them put together their own self-instructional training material.

The package will cost £1,000 for each participant.

PARTY LINE

Breaking the mental mould

During the SDP conference in Torquay one of our Parliamentary candidates, speaking in the debate on high technology, suggested that we should consider paying substantial differentials to attract more science and maths teachers into education, to ensure they were among the best available, and to enhance their status. She recognized that such a proposal was fraught with difficulties and had profound implications. Not surprisingly the suggestion received a mixed reception.

It is not new or unique and is one that has been heard increasingly as the view has developed that the relative failure of industry is not entirely unconnected with the type of education received by people in this country. I am not unsympathetic to that view myself although I do not go along with its arch proponents in industry who have no sensitivity at all about academic freedom or the wider purposes of education.

But what particularly struck me about the speech making this proposal, as indeed quite a large number of other speeches made at the conference, was that they were speeches which challenged some long-standing orthodoxies or fashionable and accepted views of the past two decades. In the four years since we launched the SDP the thinking of those of us who launched the Party has developed considerably. It has not changed fundamentally but some of the baggage of the past has been jettisoned and some of the necessary, even though at times uncomfortable, compromises proved to be no longer necessary. Those of us in the centre of this process it has been an exciting, stimulating and challenging experience. The old clichés and ideas that we knew would raise a round of applause from a partisan audience deeply embedded in 50 year old ideas and traditions have been challenged and renewed or replaced.

When we launched the SDP and then the Alliance, Roy Jenkins spoke about "breaking the mould", a phrase which has now been widely taken up by others. At that time we thought very much of breaking the mould of British politics in terms of structural change and institutional change. What has proved much more difficult is breaking the mould in people's minds. This is still proving a much more difficult task. Our Torquay conference took us a further major step down the road. The debate on our strategy, and where we stand on the political spectrum, on how we relate to the Conservative and Labour parties and the whole question of what happens in a balanced Parliament in which the Alliance shares power helped to move people's thinking along considerably. There was clearly a minority of our own members who saw the SDP as simply a Party that was going to be a new model Labour Party, a Gaitskellite organization without the irritations and encumbrances of the left-wing. There were still many journalists and many members of the public who wanted to try and place us in the old left to right spectrum, to think of us as either being a new Labour Party or a new Conservative Party rather than something new and unique that had not existed previously.

None of us were surprised to find that the research carried out by Heath, Jowell and Curtice in the British Election survey published in New Society showed the emergence of a clear profile of Alliance supporters which mirrors the attitudes expressed by the conference. The key link amongst our supporters is education, which seems to confer liberal attitudes on moral and social issues upon people combined with hard-headed realistic attitudes on economic policies. The constituency of such people has been steadily growing in size over recent years with increased affluence and access.

It is not surprising in the light of this that the majority of our members are overwhelmingly in favour of expanding education opportunities and of devoting more resources to education and training. It is a happy coincidence that such an expansion will apparently also expand the number of our supporters. Maybe that is why Mrs Thatcher wants to move in the opposite direction!

Ian Wrigglesworth

The author is Social Democratic MP for Stockton South.

End right wing ban say SDP students

by David Jobbins

A full-scale campaign to end the automatic ban on declared racist and fascist speakers on university and college campuses is to be launched by the Social Democratic Party Students this term.

The opening shots against the "no platform" policy are expected to be fired by SDP leader Dr David Owen early next month, but the students' declaration of intent has already helped to fix the political agenda for the coming year.

Moderate Conservatives are also launching an attack on the no platform policy. A demand for the National Union of Students to abandon the policy at its December conference was made this week by the Conservative Student Affairs Research Group.

SDPS leaders believe the general "no platform" policy recommended by the National Union of Students and the harsher local variations which have led to the banning of speaking engagements by right-wing Conservative MPs are damaging to students' wider interests.

The SDPS is to argue that freedom of speech should be guaranteed as long as speakers remain within the law – a view shared by the Government, which has asked Conservative MPs to supply examples of abuse.

Dr David Owen . . . freedom of speech

Mr Bernard Hughes, SDPS president said: "We think the no platform issue is a diversion for student unions from their real problems.

The student union at York University faces a High Court action launched by the university authorities after it implemented a no platform policy to prevent a meeting due to be addressed by Mr Carlisle.

SDPS is hoping that a more dynamic approach will lead to the breakthrough in student representation that has eluded it since its foundation.

Joseph's dream of the future

by Olga Wojtas
Scottish correspondent

There is likely to be a considerable increase in the number of mature students entering higher education, whose fees are paid either by their employer or themselves.

This is the view of the Secretary of State for Education and Science, Sir Keith Joseph, in an interview with Mr Ray Footman, director of information services at Edinburgh University, to be syndicated in university magazines.

Sir Keith says that while the 18-year-old age group is going to fall by a third, the Government is projecting a fall in student places of only 14 per cent.

The Government expects that after initial funding through the PICKUP scheme, more and more continuing education costs will be paid by employers, or by the individual who thinks it worthwhile to call upon savings or loans for self-improvement," says Sir Keith.

He stresses that this would not only be for short courses but for the full range of continuing education, including postgraduate and undergraduate courses.

Mr Footman points out that the problem of student funding is likely to remain a considerable restraint but Sir Keith says he hopes there will be increasing opportunities for individuals to borrow money, and increasing prosperity enabling them to use their savings.

Mr Footman says it has been suggested that if Government moves to improve quality in schools are successful, this may lead to more candidates coming forward for higher education.

"Hallelujah, hallelujah, glory be. I hope it may be so," replies Sir Keith. He says that projections for the age participation rate do not take for granted an improved performance at school.

"But we are from this winter embarking upon the monitoring of demand and shall be watching very carefully the school performance, so that we can, from year to year, adjust the projected size of the university population.

"We are in good time to do this, because the main dramatic fall doesn't occur for several years, and if we are being too cautious in our numbers, we can adjust in good time."

Mr Footman also asks what evidence Sir Keith had in mind when he expressed concern about current university standards at a recent conference organized by the Society for Research into Higher Education, and *The THES*.

Sir Keith replies: "There have been just enough complaints to cause, to justify, a certain amount of concern that the admirable intentions of the universities need careful monitoring by the universities themselves."

Mr Footman comments that given universities' output, with Edinburgh alone graduating some 2,500 students annually, he cannot recall coming across complaints of any significant number. Does Sir Keith have particular cases in mind, or could he quote a percentage figure?

"No," answers Sir Keith. "I think I must in honesty say that my own experience over the last 20 years, particularly in the mid-1970s has sometimes caused me to wonder about the standards of judgement and scrupulous consideration of evidence that it automatically be assumed for every university student. I'm putting it as gently as I can."

Sir Keith seems to be implying that there are occasionally cases which are exceptional rather than characteristic of the system as a whole, presses Mr Footman.

"I wouldn't know about that," says Sir Keith. "I've had some fairly hair-raising experiences. I don't of course, take exception to heckling, but some of the rejection of argument, some of the attitudes have been not just intolerant – because that's not a question of standards – but have rejected wide ranges of experience.

"But that isn't the sole cause of my concern. A main cause of my concern is that there have been complaints and no outside arbiter has a final appeal authority.

"A system that is proud of its performance, has to take even more obvious trouble than has been taken up until now to safeguard its own standards.

High-cost label 'unfair on NELP'

by Karen Gold

North-East London Polytechnic is unfairly a high-cost institution, because it has made substantial cuts and is subject to unusually high costs, a report by NELP researchers argues.

Significant economies have been introduced, including cuts of more than £1 million in 1984/85 and another £600,000 in the current academic year, the report says. Yet NELP remains unquestionably a high-cost institution.

"We argue that there exists an extensive list of perfectly legitimate reasons why this should be the case," the report says. "The failure of existing funding mechanisms (mainly the National Advisory Body's distribution of the advanced further education pool) to pay regard to many of these local reasons is unacceptable, both on educational grounds and for reasons of equity."

NELP has historically had the highest cost per student of any polytechnic, but the report's figures show that the gap between it and other polytechnics decreased between 1982 and 1984.

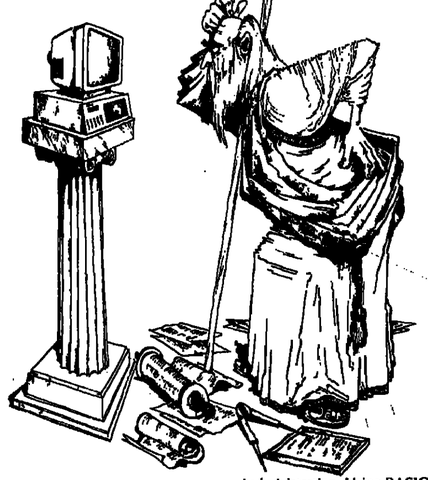
But administrative and miscellaneous costs were still much higher than other polytechnics. The paper says these costs were affected by several factors beyond the polytechnic's control: costs which elsewhere were met or subsidized by local education authorities, and costs which are either higher at NELP or arise at NELP but not at other polytechnics.

NELP had to spend at least an extra £2.25 million in 1984/85 because of interest charged by its local authority bank account and the costs of multiple sites, including extra library provision, caretaking staff and staff travelling time. NELP also has unusually high rateable values and no relief from these.

It does not have extra support for research like certain polytechnics, and the local authority charges for services are higher than most. The polytechnic also has higher administrative costs because it does its own administration, having, for example, nine personnel staff, whereas in other polytechnics this work is done by the local authority.

The extra costs attributable to these factors probably exceed £2.25 million, and comprise around 12 per cent of all the polytechnic's spending. "If this disadvantage were taken into account in costing figures, we believe it would show that NELP's reputation for high unit costs, profligacy and inefficient financial management would be largely unjustified," the report says. *Unit Costs at NELP: an unfair basis for comparison?* North-East London Polytechnic, Centre for [illegible]

WHAT WOULD ARISTOTLE HAVE LEARNT FROM A COMPUTER?



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UNION VIEW

An umbrella to beat the Ministry

It is with a somewhat jaundiced eye that lecturers in further and higher education in Scotland look on as Sir Keith Joseph seeks to remove the majority held by the National Union of Teachers on the primary and secondary committee of Burnham.

Some years ago, when the negotiating machinery for lecturers in further and higher education was established in Scotland, the Secretary of State grouped together in one committee lecturers teaching in local authority further education, lecturers working in centrally funded institutions and lecturers employed in the college of education sector which also looks to central government for its finance. The ensuing period has been one of some confusion in negotiations.

This year, however, a major breakthrough has taken place on the union side as the Educational Institute of Scotland has merged with the Association of Lecturers in Scottish Central Institutions. The EIS, the largest organization representing lecturers in local authority further education, has for some time been seeking to bring under one umbrella teachers employed across the whole range of Scottish education, and the merger with the largest organization representing lecturers in central institutions now makes EIS-ALSCI a major force both in the determination of educational policy and, perhaps more importantly, in the negotiations held within the Scottish joint negotiating committee.

The clear intention of the Secretary of State's manoeuvre in establishing the Scottish Joint Negotiating Committee was to allow various interests to conflict within the committee and to create the maximum division among lecturers.

The merger of EIS and ALSCI is an indication that lecturers' organizations have learned the bitter lesson of the last few years that central government attempts to divide lecturers should be resisted in the strongest possible way. EIS and ALSCI, the former established in 1847, the latter in 1976, are two distinct organizations whose merger has maintained the identity of ALSCI as a self-governing association within the EIS. This must lead to a closer liaison between lecturers in the further education and higher education sectors and the ability of the staff side to present a more coherent and united face to central government, boards of governors, and local authorities.

Notwithstanding the short-term problems of this year's salary negotiations, the new-found unity among lecturers' organizations will inevitably worry the Scottish Education Department. The prospect of EIS further education lecturers' national section and EIS-ALSCI combining to present the Scottish Education Department with combined educational policy initiatives will inevitably place greater pressure on the department.

The lesson for central government from all this, and especially for Sir Keith Joseph, is that he who tinkers with the machinery should beware the consequences of his action. By trying to ensure that Scottish lecturers would spend their time in internal division, George Youngor has inadvertently awakened a sleeping giant.

Jim Martin

The author is assistant secretary of the Educational Institute of Scotland.

Queen Mary's man of the century

by Paul Flather

Queen Mary College, about to embark on its hundredth anniversary year, has just landed another top physicist to take over as its next principal. Professor Ian Butterworth, currently a research director at the European Nuclear Research Centre (CERN) in Geneva will take over at the London University college next August when Sir James Menter reaches retirement age.

It will be further confirmation of Queen Mary's continuing shift towards science and technology, a move specifically asked of the college by the London University court.

Ironically, though, Professor Butterworth believes one of his most important tasks will be defending the arts and social sciences at QMC. "Of course, it is highly appropriate for me that QMC is developing its science and technology. But it is very important to me that students develop an all round attitude and one of my major tasks will be keeping an eye on arts."

Personal File.....

He is well aware of cold winds currently blowing through higher education, but he feels QMC is situated in a part of London that is ripe for expansion with the docklands.

"It's all very exciting. There is great potential for growth in this area over the next few years. There is to be a new short take-off airport and new industry. Despite the general background QMC has exciting potential for its future because of its location," he said from Geneva this week.

Professor Butterworth is perhaps best known as a physicist for his work with bubble chambers which allowed scientists to see how elementary particles – particularly neutrons – behave when they collide. He has also written extensively on Hadron spectroscopy.

He first got drawn to physics at school, though he remembers he used to worry because he seemed to be better at subjects like English and chemistry. He need not have. He graduated from Manchester University the top student of his year in 1951.

After gaining his PhD he joined the UK Atomic Energy Authority at Harwell before going to Imperial College as a physics lecturer. By 1971 he had been appointed professor of physics and head of the high-energy nuclear physics group at Imperial. From 1980 to 1983 he headed the college's physics department.

He has been involved in some of the critical decisions in science policy in recent years as a member of the Science and Engineering Research Council (1979–83) and chairman of the nuclear physics board over the same period. He became a fellow of the Royal Society in 1981, and won a CBE last year.

For the past two years he has been organizing research at CERN and has

watched sadly as the Kendrew inquiry has progressed. "I will certainly be leaving CERN with regret. My non-British colleagues cannot believe the British response. I am sure CERN has a significant future."

CERN's loss will be QMC's gain. He is sure to make the place bubble, even if he is a northerner taking over an East End landmark.

Education minister Mr Peter Brooke, above, at the Touch and See exhibition.

A blind visitor with his assistant

Cuts in extramural studies threaten course for blind

by Felicity Jones

A successful and acclaimed course which teaches sculpture to the blind is in jeopardy due to the changes in funding to university extramural departments.

The two-year-old sculpture course for the visually handicapped provided by Leicester University's department of adult education has provided blind and partially-sighted people with a unique opportunity to work in a medium hitherto denied to them.

The fruits of the students' work was an exhibition Touch and See which was visited at the Royal Institute for the Blind this week by the under-secretary of state for education, Mr Peter Brooke.

Miss Eleanor Parkinson, a lecturer in adult education at Leicester, explained that many of the students had never tried sculpture before they came on the course which had developed out of a close working relationship with the Royal Leicestershire and Wycliffe Society for the Blind.

"From tentative beginnings this group made remarkable progress in self-expression and communication through the media of papier mache, clay, wood and stone," she said.

Although it was difficult for sighted people to understand how the blind could make sculptures, Miss Parkinson said it was too little realized how important a part touch played in giving a sense of the outside world to the blind person.

"The purpose of the courses for the blind goes beyond that of providing occupational therapy, although the therapy element cannot be denied when a student gains a greater understanding of himself in relation to his environment," she said.

"An important function of the work being undertaken is to provide opportunities for gifted sculptors who are physically disabled to reach their full potential."

The work of the students was commended by Sir Kenneth Robinson, the new chairman of the Carnegie Council for the arts and disabled people at the London exhibition.

The future of the experiment is under threat from the reduction in funding to responsible bodies from the Department of Education and Science and alterations in the methods of funding which puts the onus on university adult education departments to find private sources of money.

"We have great difficulty in getting private money which means that this course is likely to become a casualty," said Miss Parkinson.

The problem for the Leicester adult education department is that it has virtually no outside income other than responsible body money so there will be a shortfall for any expansion programme.

Adult studies inquiry launched

The Unit for the Development of Adult Continuing Education has launched a national inquiry into the level of activity of older people as learners and teachers in educational institutions, voluntary bodies and in informal learning settings.

The call for information coincides with the first meeting of the unit's development group on education and older adults chaired by Miss Jeanne Bisgood, vice president of the National Institute of Adult Continuing Education.

Mr Stephen McNair, head of the unit, said the appeal for information was being channelled through existing agencies like the Open University and those local education authorities who have detailed statistics on what older people are studying. Individuals are also asked to contact Miss Alex Whitnall, the project worker on the investigation.

"This project is designed to try and piece together a map of where older adults are in education and what they are doing," said Mr McNair.

"Because we are anxious to move quickly, most of the contact will be through existing agency records but this should not exclude other sources. The committee will measure that picture alongside the kinds of needs which ought to be met."

A similar investigation has already been carried out on the voluntary statutory relationship, the development group for which also meets for the first time next week. The results of the survey are due to be published within a month.

The report is likely to raise questions about the way in which statutory bodies deal with voluntary agencies and to promote the idea of some sort of coordinating machinery within local authorities. Guidelines for local authorities may be one possible outcome.

Unions' winter of discontent

by David Jobbins

Union leaders representing staff in both the universities and local authority colleges are determined to ensure that their campaign for a U-turn in Government higher education policy continues after a week of action planned for November.

The shape of the action has been agreed by representatives of unions representing students and both teaching and ancillary staff. Now attention has turned towards maintaining the momentum up to the next general election.

The campaigners have targeted the TUC and political conferences, and are aiming to take their case to the business community during the Confederation of British Industry conference in Harrogate.

The unions last week confirmed their support for a three-day burst of activity with regional events planned for Manchester, Leeds, Glasgow and a number of other cities on Tuesday, November 26, followed by a representative lobby of Parliament and a rally in Westminster's Central Hall on November 27, and campus meetings and demonstrations on November 28.

Invitations to address the London rally have been sent to the leaders and deputy leaders of the Opposition parties and to Conservative backbenchers. Whether to invite ministers was said to be still under discussion.

Mr John Akker, deputy general secretary of the Association of University Teachers, said: "The week should not be seen in isolation. The unions have agreed we need to change the political climate towards higher education, and the week is just one aspect of a campaign going up to the next general election."

Although some of the manual and craft unions associated with it are affiliated to the Labour Party, the campaign is intended to be non-political.

It will nevertheless draw on the Higher Education for the Labour Party campaign to be launched next month by Labour's education spokesman, Mr Giles Radice. He will be sharing a platform at the Labour Party conference with the party's deputy leader, Mr Roy Hattersley.

Foster 'love of learning' call

Secondary schools of the future must adopt and espouse a policy of learning as a lifelong process, according to Mr Tim Brighouse, Oxfordshire's education officer.

Addressing a conference on recurrent education last weekend, Mr Brighouse pointed to the development of new records of achievement, currently being piloted within his own local education authority, as one means by which schools could forge new links with continuing education.

Reform of the examination system, both through the implementation of the General Certificate of Secondary Education and the introduction of records of achievement, would contribute to this process, he told delegates at a conference organized by the Association for Recurrent Education.

Secondary schools were beginning to move away from the measurement of success in purely academic terms, and starting to take up the ethos of recurrent education: emphasizing the importance of boosting confidence, developing skills and encouraging self-motivation, rather than being subject oriented and tied to an academic curriculum.

Other speakers dealing with the Technical and Vocational Education Initiative and the Certificate of Pre-vocational Education urged delegates to think of such developments as agents for change in the school system, despite their vocational background.

The conference marked the association's first attempt to focus on issues at the front end of the education system. Among delegates, the speakers provoked wide-ranging discussion on how continuing education practitioners could best support new initiatives in secondary schools and encourage positive approaches to lifelong learning.

The major issue in both sectors, it was felt, remained the need to engender a "love of learning" in order to establish a system of education which offered learning opportunities at every age and every stage of life.

A delegate from the University of the Third Age spoke of the doubts and uncertainties about the merits of education emanating from elderly students the challenge would be to stop today's schoolchildren, in an age of increasing leisure, from reaching the same conclusions.

overseas news

Chinese boost research

by Geoffrey Parkins

China is to set up a number of new scientific research centres and a science foundation in an effort to boost post-doctoral research in the country.

The decision was announced in a state council circular earlier this month which called on all educational institutions and departments to give their full support and active co-operation to the scheme.

This year, 250 outstanding young scientists holding PhDs from both Chinese and overseas universities will be enrolled for post-doctoral research courses at the new centres. The courses will last two years, after which students will work for a further two years as researchers at universities and research institutes of their choice, before taking up permanent posts.

The state council says it sees the new move as an important measure in the training of talented specialists to meet the urgent requirements of modernization. And for the purpose of stimulating academic exchange and injecting vitality into scientific research.

A special fund of 20 million yuan has been allocated for the post-doctoral programme, half of which will be used by the new science foundation. The rest will be used for the building of residential accommodation for students.

The establishment of the research centres, the enrolment of students and the distribution of research funds will be supervised by a special co-ordinating committee. Post-doctoral researchers will receive special privileges, including increased grants, upgraded living accommodation and residential permits for themselves and their families.

Since 1978 more than 3,000 students have received post-doctoral qualifications from overseas universities, and between 1981 and 1983, China's universities themselves enrolled around 1,000 doctoral students. Last year doctoral enrolments rose to 2,000.

This year, the state education commission has authorized the enrolment of 3,143 doctoral students in Chinese universities, double that of the last three years.

Of 2,000 recently enrolled, 84 per cent were under the age of 35 and are expected to complete their courses within one year. Of the total figure about 76 per cent are science and engineering students.

There are now 197 universities and research institutes offering doctoral courses with more than 1,700 tutoring staff, a rapid increase since last year when the state council authorized universities to expand opportunities for students wishing to study at doctoral level.

To help encourage postgraduates to study for doctorates some universities are offering outstanding master's students scholarships to assist them in completing their master's courses inside the three-year period. Completing on time will enable more students to commence their doctorates earlier.

The increase in doctoral enrolments is also in part due to a bulge in the university population reaching the end of their master's courses.

Technology cash

Thailand is set to sign a $49 million agreement on science and technology co-operation with America. The Americans will provide $8.5 million in grant aid and $26.5 million in low interest loans, with the Thai government and Thai businesses providing the remaining $14 million.

New universities

North Korea has announced the establishment of 18 new universities for science and technology during the present year. The universities, situated in Pyongyang, Hamhung, Chongjin and Anju, will train "qualified personnel" in computer science, oceanography, urban management, medicine and the technologies of

Extra cash goes on defence projects

from William Norris

WASHINGTON

Federal research and development funds in the United States are to be increased by 15 per cent in the 1986 budget, in spite of a slight overall cut in state spending. But a breakdown of the figures, released by the National Science Foundation, shows that all the extra money is going on defence projects – civilian research expenditure will actually decline by 2 per cent.

Altogether, $42.4 billion is being devoted to defence research and development, with much of it going on the Star Wars programme, an advanced technology bomber, and an anti-satellite system. This is an increase of 23 per cent on the 1985 total, and accounts for almost three-quarters of the total research and development budget.

Not since the early 1960s has America spent such a high proportion of its research funds on defence. Ten years ago, when expenditure totalled $20.8 billion, it was equally split between civilian and military projects. Since then there have been marked reductions in percentage terms in spending on natural resources and the environment, transportation, and energy programmes. These are all targeted for further cuts in 1986.

Space research and technology, however, which has seen a considerable decline over the past few years, gets a fresh boost with a 17 per cent increase to $3.1 billion. Much of the money will be concentrated on planetary exploration including the Galileo orbitor/probe, the Venus radar-mapper, the Mars observer, and Ulysses – a joint project between NASA and the European Space Agency.

Funding for space and terrestrial applications gets one of the largest percentage increases – up 36 per cent to $671 million. This will provide increased support for the upper atmosphere research satellite programme, which gets two-and-a-half times the money spent in 1985, and the advanced communications technology satellite, on which spending is to be doubled. Increases are also proposed for solid earth observations, materials processing in space, and information systems.

In the energy field, nuclear fission continues to receive the largest slice of the cake despite a 9 per cent cut to $380 million. Research into advanced breeder-reactor technology (down 13 per cent) has suffered the brunt of the reduced spending. Magnetic fusion, the second largest project funded by the Department of Energy, is also being trimmed down by 7 per cent to $346 million, while spending on research into the more efficient use of fossil fuels is to be slashed by 31 per cent.

A scene from Andrzej Wajda's *Man of Iron*

Viewing Polish cinema from the secret circle

Last week, the Polish film director, Ryszard Bugajski, left Poland for exile in Canada, thereby drawing international attention to the current constraints on the Polish cinema. But Polish students, who wish to keep abreast of international developments in the film world are increasingly patronizing the latest development in Polish underground culture – the uncensored cinema and video show.

Basically, there are three ways in which students can see films not approved by the censor: video showings in private homes, or church premises; on-campus showings to student clubs; and the semi-public sessions organized by entrepreneurs. Video evenings in private homes, are, obviously, the most risky. Here, the programme can include items smuggled in from the Paris office of the *Nowa* underground press. On-campus showings tend to be sporadic, and include films which either had a brief season in Warsaw and were then withdrawn, or else have innocuous titles.

Thus this year, when the Catholic University of Lublin put on its annual festival, it included video sessions of *The Deerhunter* and *The Tin Drum*. Somehow, it appears, the organizers "forgot" to notify the rector of their programme. Had they been challenged, they were ready with their excuse that, from the titles any rational person might have been misled into thinking that they dealt with, respectively, wildlife and the musical education of infants.

Far more regular, however, are the "outside" video performances. These are arranged by independent entrepreneurs who are simply out to make a fast zloty, and who, at least outside of Warsaw, seem to have reached an arrangement with the local police. The audience is not confined to students, but in provincial university towns they make up a majority of the audience, although admission charges are significantly higher than for the "official" cinema.

Sessions take place in any suitable location – in one university town the local sports hall is regularly booked for this purpose and accommodates two or three hundred viewers watching four large TV sets. A typical programme will include three films – a porno (officially banned in Poland), a Kung-Fu epic not banned, but unavailable outside Warsaw) and a "political" film. The latter category includes both Western "provocations" such as *The Deerhunter* and *1984* and also Polish films which either never went on general distribution (Bugajski's *Interrogation*) or which were either withdrawn after a relatively short period of official approval (Piotr Szulkin's *The War of the Worlds*, based on H. G. Wells' novel and of course Andrzej Wajda's account of the rise of Solidarity, *Man of Iron*).

According to one regular student video-goer, he and his classmates are most interested in the third category of film, "but even if there were nothing on but porno, we would still go, because it is forbidden".

Impatience proves a bonus

After seven years of staff cuts and low pay increases, the patience of faculty at Hofstra University in Hempstead, New York, finally snapped last week when they learned that the private institution had made a surplus of $10 million.

"We should partake of that," said philosophy professor Ignatio Gotz, and led 310 of his 390 full-time colleagues out on strike in support of a claim for a 29 per cent increase on their average salary of $33,900.

Budapest threat to ancient universities

Hungary's minister of education and culture, Dr Bela Koepeczi, has been visiting Britain this week, as part of the general process of high-level British-Hungarian rapprochement inaugurated by Mrs Thatcher's February 1984 visit to Budapest.

In his discussion with Sir Keith Joseph, he must have found at least one point of mutual sympathy, the difficulty of operating an education system with inadequate funds. Shortly before leaving Budapest, Koepeczi admitted that lack of money was creating "tensions" in Hungarian higher education.

Koepeczi was addressing the inauguration of the new academic year at Budapest's Eotvoes Lorant University, which this year is celebrating the 350th anniversary of university education in Hungary.

Venerable tradition, in the opinion of the current rector, Dr Jozsef Fueloep, however, is clearly no consolation for ageing facilities. Replying to Dr Koepeczi, he noted that the buildings of the university were getting "older and older", so that research and teaching became progressively more difficult.

Koepeczi urged the universities to devote the resources at their disposal primarily to improving the pedagogic courses. Hungary has a constant problem in finding qualified persons to fill teaching posts in primary and secondary schools.

Dr Fueloep, while not actively repudiating his minister's suggestion, side-stepped the idea of giving the lion's share of his inadequate funding to the pedagogic courses. At his university, he said, the task now imposed on the teacher-training courses were being met "primarily by a more intensive exploitation of the existing material and intellectual personnel".

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Women to overtake men on campus

from Geoff Maslen
MELBOURNE

By the end of the 1980s, women are likely to outnumber men on the campuses of Australian higher education institutions.

For the first time in more than a century of higher education in the country, women are now enrolling in undergraduate courses in universities and colleges of advanced education in greater numbers than men.

Over the past 20 years there has been an astonishing increase in the proportion of female students in tertiary institutions. In 1965, barely a quarter of the undergraduate population was female. Today, the figure is almost double.

Since 1979 in advanced education colleges, women have made up 48 per cent of student numbers and the proportion would have been higher today had there not been severe cuts in teacher education. Even technical and further education colleges, long male vocational strongholds, now depend on women for 45 per cent of their enrolments.

Although the women participating in higher education are unrepresentative of their sex overall (they tend to come from urban, well-to-do, privately educated families) the significant change in their representation on campuses is a measure of how much social attitudes have changed.

Moreover, the steady rise in university enrolments, particularly, during the 1960s and 1970s has begun to accelerate in the 1980s. According to the latest figures released by the commonwealth Tertiary Education Commission, university enrolments rose by 12,088 between 1980 and 1985. All but 91 of these extra students were women.

Releasing the preliminary figures, the federal minister for education, Senator Ryan, said: "This represents a substantial achievement of government goals to increase opportunities for women both to broaden their general education and to undertake professional courses."

But, as Senator Ryan also pointed out, there are still serious imbalances in some disciplines, especially engineering and technological courses.

In universities, females constitute only 7 per cent of engineering and technology undergraduates. In colleges, the figure is less than 3 per cent.

Even in this area, however, women have made sharp gains and have tripled the proportion over the past 10 years. In the typically "female" studies, such as education, the humanities, and the social sciences, women continue to outnumber men by around two to one.

On the other hand, among higher degree students and in the academic common rooms of universities and colleges, females are dominated by their male counterparts. Only a third of higher degree students in universities are female while among their professors there are probably not more than three women for every 100 men.

A spokesman for the Tertiary Education Commission said results from a yet-to-be-released study of the changing patterns of female enrolments showed there were several reasons for the increases.

- Many more girls than boys now stayed on to the end of school, giving a greater reservoir of females seeking entry to higher education.
- More older women were returning to study under special entry schemes.
- Government programmes such as the participation and equity scheme were having an effect in encouraging girls to stay in education.

Marxists declare war on v-c

from A. S. Abraham
BOMBAY

The fate of Calcutta University has become a major bone of contention not only within Calcutta and West Bengal state, of which it is the capital, but also between the Communist government of West Bengal and Mr Rajiv Gandhi's Congress government in New Delhi.

A large number of Calcutta educationists and Congress MPs from the state recently called on the Prime Minister in New Delhi and urged him to take over the university and make it a federal institution. Predictably, the Marxist-led Left Front government of West Bengal has attacked the appeal as "politically motivated".

The trouble goes back to the appointment of the present vice chancellor, Professor Santosh Bhattacharya, in the teeth of opposition from the Marxist government. Since his appointment by the state governor, who is constitutionally the chancellor of all the state's universities, was interpreted by the Marxists as an encroachment on their authority, they decided to make it impossible for the vice chancellor to function.

With the Communist Party, which dominates the Left Front government, controlling both the university syndicate and senate, the vice chancellor has found it all but impossible to get anything done. But he has not taken things lying down, using, for instance, his emergency powers to dismiss five employees.

The net result of this tussle has been the rapid deterioration of administrative and academic standards in a university that anyway has more than its fair share of problems. The Left Front government's attempts to democratize the university by giving teachers, students and non-teaching employees a say in administrative and academic decision-making have been controversial, succeeding only, in the eyes of its critics, in creating chaos.

Education, at one time exclusively a state subject, has for the last 10 years been a concurrent subject, ie federal legislation on a matter regulated by previous state laws supersedes the latter. New Delhi might invoke this authority to take over the university by declaring it an "institution of national importance".

Satellites hailed as teaching aid

by Thomas Land

Direct-broadcasting satellite systems linked to community receivers may well emerge as a universal communication tool in education and teacher training as well as commerce and related enterprises.

Educational radio or television combined with periodical student-teacher contact has been developed already with much success in Britain, the United States, China and the Soviet Union. An important discussion paper published by the United Nations for educational planners everywhere describes how the increasingly inexpensive and available techniques of modern electronics can improve global communication.

The system is very simple. A direct-broadcasting satellite relays signals from one or more originating earth stations to many small low-cost receiving stations. They in turn provide signals either directly to home or community television sets or for local distribution by cable or re-broadcasting.

The technology is already operational and is expected to improve rapidly. As a result, many countries and international organizations are considering the establishment of space-based, direct-broadcast educational television services owned regionally by the participants. This could lead to enormous business opportunities for British companies because of their experience already gained in the field.

The UN discussion paper, *Direct-Broadcasting Satellites for Educational Purposes*, has been prepared by specialists from 11 countries to answer questions raised at a recent global conference on satellite communications. The cost of an operational direct-broadcasting satellite system might be $200 million to cover three space vehicles (including one spare on the ground), two launches plus the essential ground control and transmission facilities. This excludes the cost of associated receiving stations, programme production and support activities.

Such expenditure would exceed the entire education budgets of many countries. But there are many new ways to reduce costs, bringing the benefits of the system within the reach of all countries. A time-sharing arrangement, for example, has saved considerable investment and operating costs for the United States and Canada in their joint use of the Communications Technology Satellite Hermes. And the European Symphonie satellite system is financed and shared equally by France and West Germany with additional participation, and funding, by 33 countries involved in various joint space enterprises.

The UN paper argues that one country might use a satellite for daytime school programmes and another for evening adult education activities, or both day and evening periods could be divided into time slots.

Sharing could be arranged also by countries several time-zones apart from each other, allowing all participants to use the same facilities during the most desirable local times.

Richard Yelland, continuing his world tour, sends a postcard from Bangkok

Thai teachers take to the hills

One of the Buddhist temples whose influence is spreading throughout Thailand

As the orange-robed monk approached holding out a golden object I braced myself for another more or less hard sales pitch. However this was no salesman, but an earnest seeker-after-truth who wanted to know the English name for his treasure.

"Vase," I replied, wondering whether to add that the British and the Americans had different pronunciations.

A vocabulary lesson ensued. We were in Thailand, in a "wat", or temple-cum-monastery, where 50 Buddhist monks and 90 novices live, some for a few weeks, others for many years.

In this Buddhist country the distinctive "wats" with green, red and gold multiple rooves, and dragon-headed staircases, can be seen in every town; the monks on their early-morning round are a part of daily life. Their men all spend at least some time in the monkhood, many are educated there.

Respect for education and for teachers is characteristic, and extends to state schools. The visitor to Bangkok cannot but notice the pupils and students, deceptively young-looking to the Western eye, in their smart white and blue uniforms, en route to school or college, or window-shopping in the air-conditioned malls.

Bangkok is the financial and physical centre of the country. The Asian and Pacific offices of UNESCO, and of several other international organizations, are situated here. But Bangkok is far from typical of the rest of the country – with more than 15 million inhabitants it is 50 times the size of the second largest city. In 1973 its population was just over 10 per cent of Thailand's total, yet 59 per cent of the secondary school enrolment, and 77 per cent of those admitted to university came from the city.

Britain, through the Overseas Development Administration and the British Council, has been assisting with in-service training not only for English teachers, but also for the agriculture teachers; and work is going ahead to try to improve the flow of information to farmers through library services and an innovative dictionary of tropical agriculture involving Birmingham University.

But while Britain and the Commonwealth countries have their influence, it is the United States – among English-speaking countries – which has the biggest impact on Thai economic life.

Another link between East and West is having its impact in the far north of the country. Here, in the hills along the border with Burma, to a lesser degree, live half a million hill-tribes people, from a number of different ethnic groups. All have migrated into Thailand in the past 200 years, and many very recently; they came originally from the Tibetan highlands or South China, in search of work, better soil, or simple security.

The hill-tribes present several problems to the Government in its policy of integrating them into the Thai state. Living above 1000 metres, many villages practise slash-and-burn agriculture which if unchecked could seriously affect the rainforests, leading to deforestation and soil-erosion. Moreover several of the tribal groups cultivate the opium poppy and production of, and addiction to, opium is common.

It does not surprise one to learn that on average they have less formal education, poor health and lower incomes than the rest of the population. Thailand has seen a role for adult education here and functional literacy and family life planning (FLFLP) is a programme which aims to go beyond simple instruction, and by relating to the work the social environment of the rural population, to develop critical approaches that will lead to effective problem solving.

Under the programme "walking teachers" have brought literacy education to some of the tribal villages.

This approach, known as *khid pen*, draws on Thai Buddhist values, has been briefly described as one that "encourages people to change themselves and their environment or both, but not to endanger themselves or their environment in the process."

New Zealand union wins right to represent

New Zealand's biggest public sector union, the Public Service Association, has won the right to represent most university non-academic staff after a drawn-out battle among the staff concerned over which union they should support.

When the national government laid down an Order-in-Council in March 1983 to bring administrative and clerical staff under the State Services Conditions of the Employment Act, the aim was to bring some uniformity into the conditions of employment among the universities.

Warnings of the planned Order-in-Council had led staff on four of the seven university campuses to set up the Association of University Staff which successfully contested a ballot in late 1983 against the private sector Clerical Workers Union for the right to represent affected staff.

Three campuses refused to set up AUS branches and initiated discussions and debate with the aim of obtaining representation by the PSA which, by agreement with the Clerical Workers Union, had not been listed on the 1983 ballot.

In spite of evidence from informal ballots on most campuses that AUS would lose to the PSA in any new ballot the then minister of state services accorded official recognition to the AUS – a move that prompted the Labour Party in opposition to promise a fresh ballot if they came to power.

Some 1,750 non-academic staff got their second chance in April this year when the Labour government ran a second ballot, and rejected the more conservative AUS by 811 votes to 652.

AUS stood firm for a while, however, insisting that the Labour government's minister of state services could not arbitrarily de-recognize them. Time, and the evident preference for the larger union, have undermined AUS and the association has now conceded to the PSA.

Some 200 staff members – liaison officers, continuing education staff, extramural staff, computer staff, medical officers, student counsellors and physical recreation staff – who had been included under the Order-in-Council were given the further option, in the second ballot, of representation by the AUT.

About half of this group were long-standing AUT members and they backed the AUT with 97 votes against 45 for the PSA and 22 for the AUS.

For the administrative and clerical staff the withdrawal of the AUS ends 18 months of often bitter wrangling between the committees on the seven campuses.

Radiation 'may not be harmful'

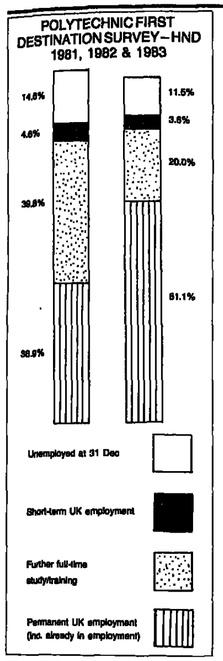
Is plutonium bad for you? To the surprise of scientists at Los Alamos National Laboratory, the deadly metal seems to have done little harm to a group of 26 workers who have probably been exposed to its effects longer than anyone else in the world.

The men were employed on the Manhattan Project to construct the first atomic bomb in 1944-45. They were chosen for long-term study because each was known to have been exposed to plutonium by inhalation, contaminated wounds or chemical burns, and they have been rigorously examined at five year intervals ever since.

Only three of the men have died, but none of them from cancer. Two had heart disease and one was killed in a car accident.

"These men were judged to have had the highest exposure to plutonium of anyone at Los Alamos during 1944 and 1945," said Dr George Voelz. "Our most recent examinations have found no history of cancer except for skin cancers in three of the men. A statistical sampling of a similar group would yield about 6.6 deaths from all causes, compared to the three deaths that have occurred."

When the radiation still remaining in their bodies was last measured in 1982 one of the men was found to have a reading of 95 nanocuries – more than double the maximum permissible lifetime burden. "To date we have found no adverse health effects traceable to the plutonium he carries," Dr Voelz said.



NAB says go to work on a sandwich

Job prospects are not quite so rosy for some of those on sub-degree courses, according to an analysis by Mr Bob Porrer, head of the careers service at Leicester Polytechnic.

Mr Porrer's study was prompted by the National Advisory Body's policy of encouraging growth on Higher National Diploma courses at the expense of degrees. He also took account of the Green Paper's support for the Diploma in Higher Education as an alternative to some humanities and social studies degrees.

The study finds a considerable gap in employment prospects between sandwich and full-time HND courses, although both modes of study produced a lower rate of immediate employment than degrees. Of the two, the three-year sandwich courses were much the more successful judged by the original vocational criterion of the diploma.

Despite the fact that grants for further study are discretionary and hard to come by in many authorities, a high proportion of HND students are going on to degree courses. On full-time courses, the percentage staying in education or training actually exceeds that going into employment.

The pattern of first destination varies between subjects, as with degrees, although the two do not match exactly. Demand for HND students in mathematics and computing, for example, has lagged well behind the equivalent figure for graduates, with little more than 40 per cent going into employment in the three years covered by the study.

Mr Porrer's conclusion is that the mix of practical and academic training offered in HND sandwich courses is more attractive to employers, without having the economic advantages to planners of the two-year course.

"All this means that if full-time HND courses are to be expanded, further research into the needs of employers is essential, together with close monitoring of first destinations and subsequent career patterns for

And now for the good news . . .

With rising competition to recruit undergraduates, job prospects are dramatically improving. John O'Leary, in the first of two reports, focuses on the changing pattern of employment on both sides of the binary line

No-one wants to crow too loudly for fear of tempting fate, but it seems that earlier optimistic forecasts about employment prospects for this year's graduates actually understated the good news. Compared with the depressing picture of the recent past, 1985 can only be described as a boom year.

Job vacancies notified to some universities and polytechnics have been running 25 per cent ahead of last year, when the tide was already turning for graduate employment. The position has been transformed since the nadir of 1981, when for the first time graduates' problems began to approach those facing school leavers.

Since then, while the underlying trend for the country as a whole has been towards still higher unemployment, demand for degrees has intensified to such an extent that the talk now is of manpower shortages, rather than over-supply. There will be graduates who cannot find a job in 1985, but in all types of institution and all disciplines, the steady improvement in prospects which was obvious last year has accelerated.

Final figures for 1984 have now been compiled and show a significant increase in the number of graduates from both sides of the binary line finding jobs. The proportion from universities still out of work by the end of the year fell from 11 to 9 per cent; the polytechnic equivalent went from 14.8 to 13.6 per cent; and that for the colleges and institutes dropped from 13.5 to 11.6 per cent.

The contrast between the polytechnics and the colleges is misleading because of the large number of college students on teacher training courses. Unemployment from the colleges' diversified courses was higher than in the polytechnics, although again the story was one of improvement.

This year's figures are certain to be better still. And, since graduate destinations are surveyed nationally only once, after six months of potential job-seeking, the real rate of unemployment obviously bears no comparison with that for school-leavers. Even taking account of a residue of graduates from previous years still searching for work, there can be little argument at present about the value of a degree in the labour market.

The row which blew up this year over the timing of interviews by some of the larger employers of graduates is evidence enough of the changed picture. A number of firms had become so eager to steal a march on their competitors in signing up the top talent that lengthy interviewing sessions off campus were becoming commonplace in the run-up to final examinations.

Concern about the disruption of students' work became sufficiently serious to warrant an unprecedented agreement between the employers and the careers services in an attempt to stamp out the practice.

Employers who stuck to the traditional "milk round" procedures this year found that up to half the students they had invited for first interviews were unable to attend because of prior commitments with rival companies. Extreme examples were found of firms insisting on applicants attending interviews the day before final examinations such was the pressure to get in first.

The result has been a new code of practice which advises employers to avoid summer term interviews for those with finals and off-campus interviews in term-time. It remains to be seen how effective the agreement

The change has not been lost on the students either, with many apparently deciding to get finals out of the way before beginning the search for a job in earnest. Some careers services have noted students failing to attend interviews for which they have been preselected and others relying on the summer recruitment fairs, which are playing a growing part in the graduate employment scene.

The fairs have been busier than ever this year and those students who played a waiting game have been

BRIEFING
BRIEFING
BRIEFING

rewarded with a selection of opportunities with firms which found they had under-estimated their requirements in the early rush.

Such an improvement runs counter to the experiences of most of Britain's industrial competitors. A recent meeting hosted by the International Labour Organization found that the global picture was of too many highly-qualified people chasing too few jobs. An ILO commentary said: "A university degree, which was once a promise of a good life and prosperous career, is fast becoming a ticket to nowhere."

In the United States, for example, the Bureau of Labour Statistics has forecast that supply will outstrip demand in many of the occupations traditionally attracting graduates. Architects, mathematicians, geographers, lawyers, university teachers, planners, social workers and writers are all expected to face difficulties throughout the decade.

Campaigns are being planned to attract graduates into unfamiliar areas of work, such as agriculture, where advances in biotechnology and genetic engineering are creating new opportunities. Already more than half of those completing PhD courses cannot find the type of employment for which they were trained.

Other countries featured in the ILO study are also preparing for difficulties. In Switzerland, graduate unemployment has risen from 2 to 5 per cent in recent years – a low figure perhaps but a faster rate of growth than that for unemployment generally. And in West Germany, the number of jobless graduates quadrupled in four years, reaching 115,000 in 1984.

International comparisons are notoriously unreliable, with different countries using different measures and starting from different bases, but the study certainly seems to show Britain tailoring its output of graduates to the demands of the economy more closely than elsewhere. In reality, however, it may be more luck than judgement and Britain may soon face problems of a different order to its competitors. A growing number of observers are beginning to predict serious shortages of graduates in key areas.

Mr Bob Porrer, head of the careers service at Leicester Polytechnic, summed up their reservations about current plans for the higher education system in his last report as chairman of the Association of Graduate Careers Advisory Services. "There are many who believe that there is likely to be a shortfall of graduates by 1990 – something that could inhibit the economic growth of the United Kingdom," he wrote.

"It is perhaps significant that the Government's Green Paper does not suggest that there is a current oversupply of graduates in toto. It is unfortunate that little account seems to be taken of the likely overall demand for graduates when projecting future student numbers."

The theme was taken up by Mr Christopher Ball, chairman of the board of the National Advisory Body, at this month's AGCAS conference. He, too, emphasized the likely growth in demand for graduates in important fields at a time when the higher education system expected to shrink. "At the very least, in planning the overall size of higher education for the 1990s, we should have regard as much to employment need as likely student demand – for student demand can be managed," he said.

It is a debate which is bound to hot up in the coming year, as responses are made to the Green Paper and work proceeds at the Department of Education and Science on the White Paper to follow. The problem for those who want to see employment needs taken into account more directly is the disrepute into which manpower planning fell during the 1970s and early 1980s, largely because of the failure to match supply and demand for doctors and teachers.

Mr Ball's answer is to take more account of employment needs in determing the overall size of the higher education system, but to be less rigid about individual subjects. The Green Paper, he told AGCAS, over-emphasized the importance of the subject studied.

Reforming courses – for example, to achieve a greater degree of scientific awareness – would go some way towards getting round the problem of attracting students into important but unpopular subject areas. Accepting the limitations of manpower planning, Mr Ball acknowledged that student demand would always be the dominant determinant of the size of the system, no matter how clearly employment needs could be assessed.

The NAB had its own discussions on ways of taking more account of employment records last year. A report from the body's industry group concluded that first destination statistics, while valuable, should not be used "to steer the system in a prescriptive manner". Longer-term trends and assessments of future employment needs were required to supplement the statistics.

For the moment, however, the six-month survey remains the main yardstick by which the employment scene is assessed. Last year's figures, together with the observations of the employers and the careers advisers on the current position, show that not only are the job prospects of graduates improving markedly, but the market is also becoming more open.

About one third of all vacancies were for graduates in any discipline and, although the biggest boom remains in high-technology fields, shortages are on the horizon in several areas (not least in teaching).

Leader, back page.

The lowest degree of discontent

Suspicions that the present once-and-for-all measurement of graduate destinations may lead to some misleading conclusions is borne out by an unusual survey carried out at the University of East Anglia.

The university has traced the early careers of its biology graduates who left between 1975 and 1979. It is claimed to be the first such detailed follow-up by any British university and is the forerunner of more extensive research now being undertaken nationally.

Biology is an interesting and pertinent subject for such a study since it is shown consistently at the top of league tables of graduate unemployment. However, UEA found that although that may be the case six months after graduation, the picture changes rapidly.

By 1984, fewer than 2 per cent of the graduates surveyed were unemployed and more than 80 per cent of those with first and upper seconds were in employment related to biology. Two-third of those graduating in period responded to the survey

Those available for employment:

	12 Months (N=182)	36 Months (N=218)	In 1984 (N=256)
In biol-related jobs	59 (32.4%)	84 (38.5%)	112 (43.7%)
In partly related jobs	30 (16.5%)	49 (22.5%)	57 (22.3%)
In unrelated jobs	82 (45.0%)	79 (36.2%)	83 (32.4%)
In graduate-level jobs	97 (53.3%)	140 (64.2%)	189 (73.8%)
In non-graduate level jobs	74 (40.8%)	72 (33.0%)	63 (24.6%)
Unemployed	11 (6.1%)	6 (2.8%)	4 (1.6%)

biased towards any sub-group.

The class of degree had considerable effect on the likelihood of subsequent employment relating directly to biology, but earnings were not generally higher for those with good degrees. More than half of all the graduates went on to some form of further study.

The survey, carried out jointly by the School of Biological Sciences and the careers centre at UEA, also found a higher level of job satisfaction, with fewer than 10 per cent of the graduates expressing any degree of discon-

doctors and other occupations range from self-employed bee-keeper to theatre manager and wildlife management in Asia.

More than two-thirds of the respondents said they were in a job for which a degree was normally required or expected. A statement accompanying the survey said: "Our findings suggest that the six-month figures are a poor predictor of future employment prospects, and that although biology graduates take some time to settle into a permanent job, their longer-term prospects are

New life in the old house

Paul Flather looks at the past, present and future of Queen Elizabeth House, Oxford

The builders have begun the conversion work at Queen Elizabeth House in Oxford. Meanwhile an 11-member committee is to meet shortly to appoint a new director to head what amounts to Oxford's version of a development studies centre. Both are the results of an involved, fairly secret drama featuring top academics, a flurry of position papers, and counterclaims of a "sell-out" versus a "necessary salvage". But now all hope the ailing house can finally be put on a firm intellectual and financial base.

Queen Elizabeth House was founded in 1954 on a £10,000 benefaction from Sir Harry Oppenheimer, the multi-millionaire South African liberal businessman. It had understandable post-colonial aims; as its charter put it, to bring people of "authority and influence from overseas" to a centre in Oxford and to "assist such persons to obtain access to the academic resources at Oxford.

It was duly founded in a 17th-century farmhouse on St Giles, leased out by St John's College at the nominal sum of £401 per year until the year 2005, with a modern wing added on in 1961. Lord Chandos, the Liberal peer, became the first chairman of governors, and the visiting fellowship and foreign service programme were launched.

At the same time the existing Institute of Commonwealth Studies, set up in 1945 largely to run courses for colonial service diplomats and graduate cadets set for overseas postings, moved in, promoting core research in the field. Until 1968 the two ran side by side when the development economists seemed to take over.

Diplomats, in recent years numbering between 25 to 30, did come to QEH to rub shoulders in the pleasant surroundings of Oxford. The current crop jokingly seem to refer to each other as Mr Nigeria, Ms Kenya, Mr Fiji or Mr Abu Dhabi, to avoid difficult names. But the programme has never really gelled or produced financial rewards.

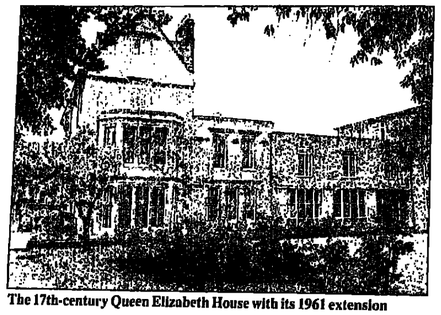
Commonwealth studies have declined since the 1940s and 1950s when they were championed at Oxford by the likes of Sir Kenneth Weir and Lord (Max) Beloff. As Dr Freddie Madden, former director of the institute for 12 years, puts it: "It's been shunted into a siding."

The main problem has been that the Commonwealth idea has disappeared. QEH has responded with a number of new initiatives from the 1970s including the woman's studies programme, the contemporary China centre, a food studies analysis group, the development records project to save archive material, and most recently a refugee studies programme.

But all in all the signs were that QEH and the ICS might become "a burden on the rates" so to speak. Against this background the Overseas Development Agency announced in early 1983 that its core funding to QEH would cease in 1984. Since 1954 it had paid about 40 per cent of core costs, reaching a peak of about £90,000 in 1983/84. The total budget is around £600,000 a year. The reason given was that it had always been understood the university would eventually take over the institution. A more pressing fact perhaps was the Government's blanket policy of ending core funding in favour of training and service payments. It still gives about £1 million a year to the Institute of Development Studies at Sussex University.

Matters now began to move quickly. The governing body under Lord Trend, former secretary to the Cabinet, then rector of Lincoln College, had to find new money and fast. Efforts were made but the money did not appear. An earlier 25th anniversary appeal had also failed. The project did not appear fashionable enough for business. QEH was forced to look to the university and the inevitable joint working party was set up.

A flurry of papers appeared, including those from interested academics, and one from a management consultant pointing out that enormous savings were possible if the residence and catering side of QEH which was just not viable "even as a second class hotel" was closed. An appeal to Mr Timothy Raison, the minister at the ODA, led to some extra trasitional money, £70,000 for 1984/85 and £45,000 for 1985/86, a breathing space, and the Oppenheimers were tried again.



The 17th-century Queen Elizabeth House with its 1961 extension

Meanwhile the university had another little local difficulty: what to do with agricultural economics under Professor George Peters, left out on a limb after forestry and agricultural science undergraduate courses were scrapped on the recommendation of the 1981 University Grants Committee letters. An investigation into the Institute of Agricultural Economics was already underway.

A solution quickly appeared to the university's faculties' general board looking down from on high. In its interim report that summer the board agreed to back a "full merger" of QEH, the ICS, and the IAE, with the ICS eventually disappearing. It acknowledged that the university would in effect have to guarantee the future existence of the institution. But it calculated this could be done by increasing its current contribution from some £39,000 to perhaps £66,500 a year plus capital costs, a bargain to gain, as it put it, an "academically desirable institution".

Academic staff concerned about the pace of events and the fact that the QEH's "independent interests" were going by the board, formed their own staff group and urged the governors to take a tougher stand with the university. They felt excluded from the debates and appealed in vain for a seat on the governing body. As one member put it:" To us it seemed the place was being run like a bad prep school with the governors holding infrequent lunch meetings."

There were attempts to haul in a glamorous new director – Lord Carrington, Sir Shridath Ramphal, secretary-general of the Commonwealth Secretariat, even Sir David Orr of Unilever were mooted. Dr Frances Stewart and Mr Neville Maxwell, the two leading staff activists, tried to galvanize Lord Trend and Dr Hazlewood. They felt the university could be treated much more like client and patron rather than bailiff. The late Professor Hedley Bull then produced a paper urging the creation of a new "international studies centre", incorporating his own field of international relations but rejecting the "technical subject" of agricultural economics.

The governors felt constrained and accepted the university's interim report. Details were calculated, buildings were surveyed, space was calculated, the QEH librarian Mr Bob Townsend was told he would have less shelving and have to move into "steady state" as far as books were concerned.

In June 1984 the link with the university was accepted by the governors. It was ratified by the university's hebdomadal council this March, and by QEH in June. The builders then moved in to do the conversions before the arrival of agricultural economics. In all £415,000 is allocated for the work.

Some still feel the ideals of 1954 have been "sold out" that the economists may be taking over. But could anything else have been done? Lord Trend puts it simply: "It's no use being an independent body if you have not got any money. The whole point of the exercise was a viable, fully integrated, entity." He adds frankly that nothing more could have been done. Professor Robert Nield, professor of economics at Cambridge, who perhaps took the side of the staff more than any other governor, agrees. "I feel now that the outcome could not have been very difficult from what it was."

There are many unanswered questions. Did the university exploit the situation to get a "good bargain", having allegedly largely neglected its half of the 1954 deal to support QEH? Was the governing body too insular, too Oxford-based? Has it sold out the 1954 aims, or acted *ultra vires* in changing its charter, ratifying the victory of the development economists? Or did it act prudently in different circumstances to save the institution?

The drama though is coming to an end and all now look to the new director to give QEH the kind of reputation many hoped it would have had by now. There were some 60 applicants for the £20,795-a-year post and a final appointment is certainly expected by the end of the year.

After 30 years it is undoubtedly true to say that Queen Elizabeth House still lacks the kind of status expected of it. It has all the advantages of an Oxford home yet the IDS at Sussex, founded in 1966, seems to have a much higher profile and probably the largest European library on development. The new troika set up by the university might be a bureaucrat's second-best solution, but there is real scope to produce an exciting third world studies centre in Oxford.

Down the workers

Maggie Richards on the financial plight facing the WEA

A sheaf of papers landed last week on the desk of the general secretary of the Workers' Educational Association, Mr Robert Lochire, and served as a grim statistical reminder of the real impact of Government spending cuts on this long-established arm of the adult education service.

The papers represent the returns from each of the association's 15 English districts, and predict the financial outlook for the coming year. Flicking through the pages, Mr Lochrie could relate a tale of financial woe and impending doom written on every sheet.

This autumn all 15 of the districts have reported severe financial difficulties, which range from one projected £6,000 deficit in an affluent South-East region to a shortfall of more than £40,000 in a hard-pressed area of the North.

In total the WEA expects the deficit to amount to a staggering £300,000. And Mr Lochrie is under no illusions about the result. If the trend continues, he predicts, several districts will go bankrupt within the next two to three years.

The crisis confronting the WEA follows a familiar pattern for adult education agencies: a Government spending cut (the WEA has to reduce spending by 8.5 per cent over three years) piled on the back of dwindling income from local authorities. But, unlike other organizations in the field, the WEA is now beset by two additional funding problems.

Historically, the association has provided many classes in conjunction with university extramural departments. In happier financial times, the universities were content to allow the WEA to retain income from these classes, and the revenues obtained were used to pay administrative staffing costs for each district.

Beleaguered by their own cash problems, the universities are now demanding a slice of the income for themselves. Extramural departments, faced with their own reductions in grant, had been encouraged to claw back some of the fee income from joint provision by the Department of Education and Science.

The response of the universities has been a bitter blow to the WEA. Mr Lochrie maintains more money has been lost to districts through this action than through the imposition by the Government of the three-year reduction in grant aid.

"The DES has been squeezing the universities, directly through the extramural departments and indirectly through the University Grants Committee and the universities themselves," he said. "A fair proportion of what universities have lost has in fact been passed on to the WEA."

The WEA is about to pass to Sir Keith Joseph, Secretary of State for Education, some statistics to back up its claim: in 1979 the association handed back some £6,000 to the universities participating in joint provision; by this year the figure had leapt to £110,000; by next year the WEA anticipates it will have risen again to £150,000.

The WEA is also having to come to terms with a further assault upon its resources, and one which is potentially the most crippling of all – a new funding formula proposed by the DES.

Originally WEA districts were funded on a straightforward basis: grant was allocated to cover 75 per cent of all tuition costs. More recently, the DES has permitted some monies to be diverted into paying administrative costs, the salaries of district secretaries and upkeep of district offices.

Now, under a new formula, the DES wants the amount of grant aid, currently approaching the £2½m mark, to each district strictly related to the numbers of students attending courses, with special additional payments for students on concessionary fee levels.

The DES claims the new funding formula will make districts more conscious of the need to attract and sustain popular courses, and perhaps provide additional cash to boost programmes for the disadvantaged. It has also proposed a scheme of compensatory payments for such programmes, to encourage districts to develop more innovatory approaches.

While the WEA has agreed the whole system of grant payments needs overhauling, and that to some extent payment for performance might be advantageous, it has grave reservations about the current proposals.

The association fears the new funding mechanism will result in an upward – and downward – spiral, so that prosperous districts with a large and affluent membership will be rewarded for success in attracting extra students, and be able to use the new additional income to further boost their programmes.

Conversely, less fortunate districts, struggling to retain a small clientele and already hard-pressed by a large number of low-attendance social priority programmes, will experience an ever-decreasing decline in funds, coupled with attendance problems of loss of morale among staff and voluntary members.

The WEA has pointed out too, that the budgeting process is grossly unfair and damaging to all districts, because it encourages cut-throat competition for limited and ever-diminishing resources.

Mr Lochrie explained: "A central objection is that the new system is being introduced at a time when there is a cash limit on the total sum available and it is a reducing cash limit each year because of the cuts imposed on us. If districts are to be rewarded for success in attracting students, any extra income received from the DES can only come from other WEA districts."

No account, the WEA maintains, has been taken in the new funding formula of the ability of districts to raise additional external income. Thus, a district receiving a generous grant from its local education authority or a subsidy in another form, such as free accommodation, will be far better placed to attract more students and so reap an even richer reward.

There is serious concern among WEA officials that the DES does not appreciate how dramatically the quality of adult education work will suffer. If tutors are forced to accept large class sizes, the degree to which student participation – a fundamental principle of WEA tuition – is possible will diminish.

Mr Lochrie argues there is also a basic misunderstanding in Government circles about the financial standing of the WEA districts: a belief that any organization can make cuts and prune its administration.

"We do not have a large staff. We are not a big institution with the scope to move personnel and slim down our operation."

The association is keenly aware that such reorganization exercises might have a detrimental effect on the enthusiasm of the extensive army of volunteers who currently assist with much of the routine administration throughout the 15 districts and their associated 900 branches.

It is felt the WEA's work with disadvantaged groups – ethnic minorities, the unemployed, women – will also be seriously affected. Where districts are engaged in development work, progress can be painstakingly slow and barely productive for a considerable period.

Under the new policy districts will need to weigh up whether the time and effort spent on such projects can be justified, given the need to pour maximum energy into recruiting large numbers of students to generate sufficient grant aid.

"We are not engaged in selling soap powder, yet we are being treated as this type of market," Mr Lochrie said. Counter-proposals have been put forward by the WEA, designed to meet the principal objectives outlined by the DES in their new funding formula: to reward success; improve quality; meet needs; and encourage development.

The WEA argues that no simple combination of payment for increased productivity (measured by student attendance rates) plus an amount for work with the disadvantaged will meet these criteria. It has asked the DES to address a fundamental question: What is grant aid paid for?

The association has proposed that a team of at least three field workers should service each of the 15 districts. Half of the amount provided by central government would be used to support this core organization, while the remainder might be divided so that a further 30 to 40 per cent was channelled to districts on the basis of their success in attracting students.

The remaining sum might then be used to balance any inequalities between districts; those regions struggling under the yoke of high unemployment or attempting to serve large rural communications might receive a special weighting on numbers.

Alternatively, payments might be allocated to districts for special programmes, designated and approved as priorities by the WEA's own national conference.

Under this scheme, the conference would annually determine its priorities and districts would subsequently be set targets as part of specific projects for the disadvantaged.

Using Her Majesty's Inspectorate as an agent of the DES, the WEA is proposing that this method of implementation would be open to negotiation. The grant to district over a period of years would depend on how far it succeeded in meeting the targets set at the beginning.

David Jobbins looks at NUS's latest research on student loans, the issue that won't go away

Loan rangers report back

To the annoyance of their opponents, student loans display a remarkable capacity for surviving the vagaries of Government policy.

To the equal dismay of their supporters they have demonstrated a distressing tendency to fail even to approach the starting gate of legislation.

Time after time ministers have toyed with the concept, outlined schemes and enraged the critics only to shelve their proposals under political pressure from various quarters.

Considered and rejected when the all-grant system was devised in the late 1950s, they have been resurrected and eventually dismissed three times in the lifetime of the Thatcher Government. Killed off by the Treasury in 1981, shelved on the eve of the 1983 general election, the proposal was dropped from the Government's armoury of weapons to tackle the student financial support system earlier this summer.

Last November, worsted in his attempt to make the parents of some well-off students contribute to their tuition fees, Sir Keith Joseph, Secretary of State for Education and Science, told MPs that a review of financial support would include loans.

This announcement was taken in many quarters as a clear statement that a mixed grants and loans system was once again on the cards. But even Sir Keith, a known loans enthusiast, was cautious in the extreme about its chances of coming to fruition when questioned by the Select Committee on Education, Science and the Arts.

He made clear that the objections voiced by the Treasury in 1981 still obtained, effectively blocking off one option of a Government-financed scheme. The clearing banks almost simultaneously said they were not interested unless there were firm guarantees over who if anyone would subsidize the interest rate, and who would cover the cost of the anticipated default rate, making the other option of a commercial but state-underwritten scheme more remote.

But opinions remained divided on the outcome of the review and it seemed prudent to opponents of loans to prepare for the debate and marshall their facts on the assumption that they would be facing a real threat.

Among them the National Union of Students embarked on an ambitious project to, as its president, Mr Phil Woolas, puts it, seek the truth. It despatched its grants officer, Adam Gaines, and research officer, Nigel Turner, to examine existing loans and grants systems – the mix favoured by Sir Keith in four North American and Scandinavian countries.

The report of their research is published today* together with their main conclusion – that the systems studied do not "meet the criteria of maintaining an efficient education system of high quality combined with equality of access and freedom of choice of study and efficient course length."

In a foreword Mr Woolas says: "The proponents of student loans have been unable to prove their case. They have not in principle or in practice been able to show that such a system of student financial support would benefit students, education, government or the country.

"It is not circumstance that has brought this about. It is rather that further and higher education does not solely benfit the recipient, nor is it the case that the recipient does not pay in financial terms for those benefits."

Adam Gaines (left) and Nigel Turner: seekers after truth

The NUS team investigated the practical effects of the schemes operating in Denmark, Sweden, the United States and Canada in arriving at its not-entirely unexpected conclusions.

Ironically three out of the four – Denmark was the exception – were evaluated by Ms Maureen Woodall in her study published in 1982 which concluded there were considerable advantages in terms of flexibility and equity in a mixed loans and grants system.

Her view was diametrically opposed to the NUS study, arguing that a mixed system would "maximize the benefits of student aid both for students and the whole community, and would not impose undue and inequitable burdens of cost to the taxpayer."

The only point of agreement between Ms Woodhall and the NUS report is that the present grants system does little to widen access to higher education and lacks the flexibility needed to adapt to rapidly changing social needs.

In any loans scheme two key practical factors stand out in the minds of administrators and educationists – what happens to students who cannot or will not repay their debts, and what are the implications for wider access to higher education?

The researchers solicited the views of student organizations, educationists, loan administrators and Government agencies to seek to answer these and other questions.

Little they found served to shake NUS's conviction that loans/grants mixed were not an acceptable alternative to a proper and systematically financed network of grants.

In Denmark approaching 185,000 students owed 100,000 kroner or more each (almost £8,000) and defaulters amounted to about 2 per cent of the total amount outstanding – equivalent to several thousand students.

Sweden, which offered the most liberal deferment arrangements, received applications from 14 per cent of all students for deferment, and this alone led to the most common reason for default.

In both the USA and Canada defaulters were a serious problem, with the volume of debt in the USA growing even if numbers of individuals were falling. In Canada the federal government, which picks up the tab for defaulters from the complex support system developed by the provinces, 79,000 claims were lodged for reimbursement by lending agencies over a 16 year period with the rate said to be rising.

Default rates are a major factor in Treasury opposition to a loans scheme in the UK, with every loan a potential debt on its books.

But even if the default problem could be resolved, and a system devised to balance potential earning capacity against educational investment, is it worth it in terms of social engineering?

Ministers are firmly on record on their concern at the low participation rates of working class children and women in higher education. Indeed a widening of educational opportunity has been the acceptable face of the case for loans.

But the NUS researchers found little evidence of a positive influence of a loans element on participation by non-traditional groups.

Despite any evidence of discrimination, women were underrepresented in Danish higher education, they were told, but financial support was considered a less relevant factor than others. In Sweden too, any imbalance between the sexes was felt to be unconnected, but significantly a decline in participation by lower social classes was said to coincide with a fall in the grant element of the mix from 25 per cent/75 per cent grant to loans in 1965 to 6.5 per cent/93.5 per cent.

It was on the other side of the Atlantic that they found the most dramatic evidence. There was a considerable but partial success in attracting target groups – women and independent students – but little increase in the proportion of blacks and a decline in the proportion of lower income families.

"It appears from our studies that students from lower social classes may have attitudinal problems to borrowing finance for education, a problem that does not arise with a normal grants system," they say.

"It has become clear from our research that there is a threshold of resistance by students from working class backgrounds to taking out loans that cannot be broken by offering loans with a greater element of subsidy."

They also postulate educational distortions, with students choosing courses leading to a lower level of debt or higher level of reward, taking time off to earn money and meeting higher debts.

A scheme which met these objections would, they argue, be more expensive in the short and longer terms than a grants system.

"We are of the opinion that the introduction of a loans system could have severe detrimental effects on the system of education currently provided in the UK, in that it would affect choice of courses, reduce access to FHE, and increase the length of courses for financial rather than academic reasons.

NUS's alternative is easy to articulate, possible to cost, but difficult for a Government committed to reducing public expenditure to fund a full grants system removing financial barriers from the unfettered implementation of the Robbins principle.

With loans off the immediate agenda the debate is, however, likely to centre on ways of shoring up the present system which all sides condemn as inadequate.

**Student Loans: The Costs and Consequences*, published by the National Union of Students, 461 Holloway Road, London N7 at £10.

Billion dollar debt

Failure by American college students to repay their loans under the Guaranteed Student Loan programme is going to cost the US government $1.1 billion this year – an increase of 46 per cent over the figure for 1984. And the default rate has more than doubled – from 3.3 per cent to 7.4 per cent.

At least, these are the figures announced by Education Secretary William J. Bennett, who is urging Congress to pass Bills which would crack down on defaulters and tighten collection requirements for lenders.

But there are those who suspect that Dr Bennett may be magnifying the problem in support of the Reagan administration's long-running campaign to cut student loans, which has so far met with little success on Capitol Hill. They point out that the Education Department has calculated the default rate under a new formula this year, thus distorting the comparison.

Historically, calculations of the default rate have excluded loans which are the subject of litigation, and those considered uncollectable. Now these are being included. The department claims that the new formula "puts the default rate in proper perspective". Others are not so sure. "It almost seems as if somebody over there has a hidden agenda to hurt the programme," said Jean Frohilcher, staff director of the National Council of Higher Education Loans.

Dr Bennett, calling the increase in the volume of defaults "alarming", is forecasting that claims paid by the government to the banks and agencies which do the actual lending could rise to $1.8 billion by 1990, "with the cumulative total of student loan defaults reaching almost $12 billion in just five years.

"Ultimately," he told the House Subcommittee on Postsecondary Education, "the costs of a high default rate by current students must be borne by the taxpayers and by students seeking loans in the future. We want to remind students who borrow from their fellow citizens to finance their education that it is their responsibility to repay their debts."

Those debts can be considerable. The average college student today, with parents of low or moderate means, will borrow between $7,000 and $9,000 to complete his education. This is supposed to be paid back over 10 years after leaving college, and though rates of interest are subsidised, it means a monthly repayment stretching into the future of between $112 and $124 each month.

The total amount of money loaned under the Guaranteed Scheme has risen enormously. In 1978 the total was $1.9 billion dollars, but by 1981 – the year for which loans are now falling due for repayment – it had soared to $7.8 billion.

"When you have that much money outstanding, once it begins to go into repayment it is inevitable that defaults are going to occur, says Richard Jerue of the American Association of State Colleges and Universities.

Dr Bennett, however, is not prepard to accept the inevitability of the situation. Last month the Education Department began sending letters to a million people who had defaulted on student loans, with a warning that the Internal Revenue Service would deduct the amount they owed from any tax rebates due to them. It also referred the names of 16,000 defaulters to the Justice Department for prosecution.

Now fresh regulations have been issued which disqualify lenders from federal loan insurance if they do not chase debtors within 90 days, and which tighten up conditions for the granting of loans.

But one of Dr Bennett's chief problems in recovering cash from defaulting former students is finding the students and sending out bills.

Free enterprise, as ever, has the answer. A company known as People Locator has been set up in Florida with the sole object of tracking down defaulters on student loans. Working for a flat fee on a "no find – no pay" basis, the investigators start with the last known address and use old school or job contacts to track their prey. Because the firm is not a collection agency, friends are more willing to talk.

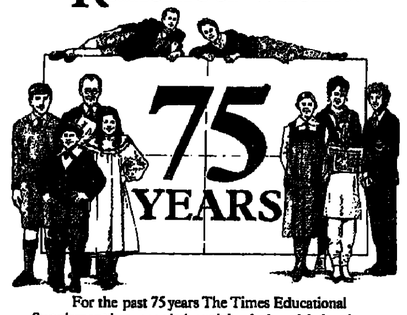
People Locator claims a success rate of between 65 and 80 per cent according to the age of the file. The firm makes no attempt to collect the money but merely passes the information back to the college or bank concerned.

Business is booming. President of the company, Carl MacBride said: "You'd be surprised at the number of professional people we find in our searches".

Up to now the company has been working mainly for universities and banks, but Dr Bennett's new crusade has brought it a pilot project with the Education Department itself.

William Norris

Remember when...



For the past 75 years The Times Educational Supplement has recorded, explained, chronicled and criticised the education of the nation. On September 27 the regular TES is augmented by a FREE 56 page commemorative anniversary supplement which reviews developments and changes from 1910 to 1985.

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Left: Anyone for tennis: a 1920s sporting look from Birmingham Polytechnic final year fashion student Alison Vernon. 1985 Designer of the Year winner, chosen by the Federation of Clothing Designers and Executives.

Right: Printed fleece coat and leggings from Royal College of Art student Susan Rooke, shown at the RCA's degree show.

Tailoring talent

Today's fashion and textile graduates may grace the college catwalks with the most daring designs, billowing silks and printed cottons, but have they learned to tailor their talents to the real market?

According to the professional talent spotters aspiring designers, fresh from the polytechnics and art colleges are "full of fanciful ideas", but tend to be commercially naive. Some colleges are apt to nurture their students' design skills, without tutoring them in the rudiments of pricing and costing.

Caroline Coates is the managing director of Amalgamated Talent, a group set up to launch, market, and sell the work of young British fashion designers. She said: "We have to try and make our designers think about the cost and end price of something. They tend to use the most fabulous silks and dyes you can think of. These are so expensive that they are pricing themselves out of the market."

Ms Coates spends much of her time at the summer fashion shows held by design departments. She says the promising graduates are those who combine design sense with technical skills and commitment.

About half the graduates she promotes have some commercial sense. The others need guidance on how to capitalize on their talents. Ms Coates is critical both of courses which allow students to produce impractical creations and of ones which stifle their style in the interests of marketability.

"Some colleges encourage students to stretch themselves as designers and emphasize their individuality in a strong way. But often the results would be unsaleable. They have to learn to produce the bread and butter stuff which will sell. If they include too much detail they are likely to price themselves out of the market.

"It is important to get the balance. Some colleges go to the opposite extreme and gear their students for the mass market manufacturer – the end product can be simple things which are boring. The most successful designers have to pull all these different threads together," she said.

Amalgamated Talent helps designers to edit their collections. Ms Coates says the most successful ones score a partial success on their first season, and usually do better by their second or third collections.

College fashion has broken free from the outlandish and experimental straitjacket of the last few years, according to Ms Coates. "Fashion is getting broader again. There is more variety; designers are less worried about fitting into a certain type."

Professor Paul Burns, who runs the graduate enterprise programme at the Cranfield Institute's school of management, is also on the look-out for talented designers. Among the graduates on his course are some who wish to set up as fashion designers. In his experience: "There's an enormous amount of creative talent about. But some of the people coming out of the design schools are so commercially naive as to be a danger to themselves."

He believes that part of the problem lies in the fact that "designers' training makes them divergent thinkers, whereas to have a commercial sense your training needs to be in convergent thinking – that is finding solutions to problems".

Sir James Cleminson, president of the Confederation of British Industry, said recently at the launch of the Middlesex Polytechnic fashion show that there was "an enormous reserve of talent" among the younger generation of designers in this country.

He said: "Design must permeate the whole process of manufacture and marketing," and added that design courses should be related to the needs of industry.

Adriana Caudrey

Above: The work of St Martins School of Art student Freda Jenkins is shown at the Inner London Education Authority's gala evening. Below: Hat by fellow St Martins student Kerstin Weichel, modelled at the same show.

Vital statistics: Newcastle Polytechnic fashion marketing student Gail Beriman's degree show project was a range of clothes for the taller man.

Sir James Cleminson, president of the Confederation of British Industry, opens the fashion show at Middlesex.

Leicester Polytechnic student Mandy Robinson designed these leotards in a cotton/Lycra mix.

Middlesex Polytechnic student Ahamed Mohideen shows off his menswear designs.

Classics to classics, dust to dust

In his *Classical Education in Britain 1500–1900*, M. L. Clarke documents objections to the dominance of the Classics in the 17th century school curriculum. John Locke's *Thoughts on Education* expresses them succinctly: "Though Latin is necessary for gentlemen and Greek for scholars, both are a waste of time for those destined for trade." He was objecting particularly to the concentration on grammar, composition of verses, and practice of Latin declamation. Such protests were disregarded. Indeed, until the virtual elimination of the grammar schools a generation ago, Greek and Latin retained an honoured if declining place in the curriculum. And they continued to be taught in the time-honoured way, duly producing both gentlemen and good scholars; but they also induced a backlash from those who remembered only the drudgery.

This backlash has been evident in the reforms which followed the introduction of comprehensive education, for Latin as well as Greek has been excised from many state schools. The beast lies wounded, and Sir Keith Joseph's blueprint for a centralized school curriculum could be the death blow. His plan for a balanced programme of study is modelled on the Munn reforms in Scotland. These reforms left open the *possibility* of study of more than one language in the schools, but in the present climate of financial stringency, of increased demands for science and engineering, and of pressure from new subjects, French is increasingly the only language to survive. University English departments lament the inability of undergraduates to use their own language correctly.

It was Thomas Arnold who preached most clearly the central value of the Classics even for those destined for trade. "The study of language seems to me as if it was given for the very purpose of forming the human mind in youth; and the Greek and Latin languages seem the very instruments by which this is to be effected." And again: "Every lesson in Greek or Latin ought to be made a lesson in English." The rediscovery of this truth is the reason for the recent revival of Latin in North American schools; the tendency for educational reform to move in a circular direction will doubtless ensure a similar revival here a wasted generation hence.

The threat posed to Greek and Latin in the schools is inevitably having its effect on the universities. The decline in applicants makes it relatively easy to obtain admission to Oxbridge; there as elsewhere the level of linguistic competence is considerably lower, though there may be partial compensation in heightened literary awareness. A few provincial and Scottish universities are attracting reasonable numbers of recruits for study of the original languages, but the great majority are not. This has not brought enforced leisure to university teachers; as in America so here classical civilization courses have become the norm, and the two languages are increasingly being taught from scratch to small groups. As one who 30 years ago lectured on Cicero's *De Senectute* to 300 conscripts, watching them grow old before my very eyes, I cannot regret this movement of the majority away from the original languages to the perusal of the literature, history and art of the ancient world through translations and the material remains.

But more grievous is the diminution in the number of those well-instructed pupils from the schools eager to study the ancient languages. Those who begin Greek or Latin or both at university do not have a sufficiently lengthy period to benefit from that process of unconscious assimilation which is so vital in the study of difficult languages; a combination of exceptional intelligence and tenacious commitment is required for even modest success.

In the present climate of extreme financial stringency, with Sir Alex Jarratt's committee urging vice chancellors into the role of chairmen of IC1 or Reed International (Newman, lie placid in thy grave), the University Grants Committee is looking critically at the future of small departments. The pressure to close or to merge some Classics departments may be considerable. This would not be a disaster in the more technological institutions, but in arts faculties with a traditional spread it would be a scandal and a shame.

The Classics have a vital link with so many other disciplines – archaeology, fine art, medieval history, philosophy, the romance languages, English literature up to the 19th century, not to mention divinity, law and music – that the effect on university learning as a whole could be disastrous. Arts disciplines are not autonomous or separable.

It is important for those who survive in university classical teaching to be more self-critical about our role in the university at large. Too many of us lose opportunities to exploit the importance of our subject in interdisciplinary courses, and in attracting students from other disciplines. In this respect we have much to learn from livelier North American departments, many of them steered by British emigrés who smile indulgently at our retiring ways. The *bon mot* of one of these, tempted to return to an academic post in Britain by the muggings endemic in American cities, is worth repeating if unfair: "It's a question of deciding whether to die of boredom or to die of fright."

This aim of greater involvement in broader intellectual endeavours need not be confined to interdisciplinary teaching. On the Latin side in particular there are many possibilities of collaborative research. Latin is the learned language of Europe until the 16th century, and sometimes beyond; it is the key which opens many doors other than that leading to the *hortus conclusus* of Roman literature. Happily several scholars are extending their researches into the medieval and Renaissance periods, where opportunities for pioneering work in producing texts, commentaries and monographs are legion.

Most of our increasingly geriatric community, however, will wish to remain faithful to the traditional task of reinterpreting the truth, beauty and wisdom of Greece and Rome to the succeeding generation. At a time when the university presses and other traditional publishers of classical books are constrained to publish fewer works and at high prices, it is encouraging to find smaller companies like Aris and Phillips, Croom Helm and the Bristol Classical Press aiding the precarious but vital continuance of the classical tradition by publication of inexpensive texts and monographs vital for school and university teaching.

The author is professor of humanity in the University of Glasgow.

Decline of the Roman empire

P. G. Walsh looks at the current state of classical studies

Any attempt to assess in 3,000 words the present condition of classical studies in Britain, considered within the perspective of their history, can only be subjective and superficial. We are heirs to a discipline as old as the 6th century BC, when Peisistratus at Athens is said to have established a public library and to have begun the systematic collection of the Homeric poems. The very history of Classical scholarship dates back 400 years to Henri Estienne's *De Criticis Veteribus Graecis et Latinis* published in 1587.

That is the unfathomable depth of the subject, but think too of the breadth. When Erasmus distinguished two branches of knowledge, that of words and that of things, he was anticipating the fruitful tension which was to develop in the 19th century between those scholars devoting themselves single-mindedly to the texts and those striving, however inadequately, to comprehend the whole of *Altertumswissenschaft*, the science of antiquity. This second aim is like the Stoic's pursuit of virtue, an aspiration at once heroic and ludicrous, the attempt to maintain an acquaintance with the literature, philosophy, history and art of two separate if interrelated cultures, while simultaneously mastering all the secondary literature on particular facets of them.

Alastair Fowler, in a *THES* review of the progress of English studies last spring, wrote feelingly of the impossibility of keeping abreast of the prodigious quantity of academic criticism in his subject. In classical studies likewise, the yearly catalogue of editions, monographs and periodical-literature in *L'Année Philologique* steadily becomes bulkier, though technological innovations make it easier to obtain or to consult much of the material.

The informed judgements of foreign scholars of repute about earlier British Classical scholarship make instructive reading. Though formal classical teaching at Oxford and Cambridge was securely established by the early 16th century, and in the Scottish universities Greek as well as Latin was being taught a few decades later, neither Wilamowitz in his *Geschichte der Philologie* (1921) nor Pfeiffer in his second volume takes serious account of any British scholar prior to Richard Bentley (1662–1742).

At the beginning of the Renaissance it was the Italian humanists, above all Lorenzo Valla and Politian, who dominated; the 16th century belonged predominantly to France, where after the foundation of the Collège Royale by François I, Budé, Dorat, Etienne, Casaubon, and above all the younger Scaliger were the stars of the classical firmament; in the 17th century Holland was able to build on the pioneering humanism of Erasmus and Lipsius to produce a notable line of scholars. But in the histories of classical [illegible] with these luminaries until the 18th century.

It is hard to resist the conclusion that there were no British professionals before Bentley. There had been superb Latinists like Buchanan in Scotland and Milton in England, who could buy or sell any modern scholar in creative use of the language – a tradition continued by Samuel Johnson later – but that is a different matter. Bentley's contribution to the science of editing Latin texts was complemented with his original researches into Homer (he discovered the digamma), Hellenistic poetry, the text of the New Testament, and the ancient grammarians.

He thereby established at Cambridge, where he was Master of Trinity, a flourishing tradition of textual scholarship; the most noteworthy of his successors was Richard Porson (1759–1808). But shortly afterwards English Classics entered upon a period of decline. Latin and Greek continued to be the dominant subjects in university education, but they were studied more to educate men for state and church than to advance the frontiers of knowledge. By contrast in Scotland a tradition of distinguished scholarship was inaugurated at Glasgow under William Ramsay and Lushington; their pupils included Badham, the founder of Australian classical scholarship, Sellar, Lewis Campbell, D. B. Monro, and Sir James Frazer. But England had to wait for Houseman (1859–1936) as a worthy successor to Bentley and Porson.

Meanwhile Germany in the 19th century had acquired undisputed leadership among the cultivated nations. The civilizing movement had begun outside the universities a century earlier with the enthusiasm of Winckelmann, Goethe and von Humboldt for Greek art architecture. A renewal of classical scholarship in both university and gymnasium ensued. Many scholars devoted themselves to the texts alone; we owe to the Germans of the late 18th and 19th centuries many of the editions which serve our present needs. Other scholars like Boeckh and Niebuhr undertook broader studies; Niebuhr, who was for a time a student at Edinburgh, revolutionized scholarly approaches to Roman history, and his example was followed by Mommsen (1817–1903), whose legal training and mastery of inscriptions, coinage and chronology gave him unrivalled eminence as an historian of Rome.

This dominance of German scholarship among British scholars in the later half of the 19th century. At Oxford, Conington, Nettleship and Wickham were competent Latinists, D. B. Monro and Bywater outstanding on the Greek side; and under the influence of Niebuhr and Mommsen a tradition of ancient history developed with Pelham, Strachan-Davidson and Greenidge. Archaeology and art also now made their appearance with Gardner, Farnell and Jane Harrison. Cambridge had not as yet developed its ancient history, but her literary men – notably Jackson, Jebb and Verrall in Greek studies and H. A. J. Munro, Mayor and Reid on the Latin authors – were superior.

A steady increase in the quantity of scholarly contributions in English now developed with the proliferation of teaching posts in the provincial universities and university colleges in England and Wales, and with the rapid development of arts faculties overseas, especially in North America and in the Antipodes. If a single name is to be mentioned, it must be that of Gilbert Murray, not so much for pure scholarship (though his Oxford Text of Euripides was important) as because he set the Greek civilization within a broader anthropological frame, and by his lectures and translations created a widespread enthusiasm for Greek culture. More generally, a good indication of the enhanced contributions made by British scholars in the first half of the 20th century can be obtained by scrutiny of *Fifty Years of Classical Scholarship*; unfortunately no attempt was made in this volume to cover the impressive developments in ancient history, art and archaeology in addition to the literary advances.

The beneficent influence of European scholarship, especially from Germany, continued until the 1930s, when it painfully became more direct through the advent of National Socialism. A cluster of distinguished scholars, notably Jacoby, Fraenkel, Momigliano and Bieler, took refuge in these islands, and by their leadership in teaching and research furthered the contributions of their British pupils.

Totally new research in ancient literature had been possible in Greek owing to the discovery and publication of papyri which have significantly advanced our understanding of New Comedy, and to a lesser degree of lyric poetry. In other fields of Greek literature our traditional strengths have been maintained with impressive editions of Hesiod, the tragedians, Aristophanes and Theocritus. The historians have likewise been well served with the appearance of notable commentaries on Thucydides, Polybius and Arrian. In the field of Greek philosophy perhaps the most significant development in recent years has been the greater attention focused on Neoplatonism, though Plato and Aristotle have not been neglected.

Latin literature has no new discoveries to explore, but the flood of editions, commentaries, literary studies and learned articles shows no sign of abating. Several books on the theory and history of textual criticism have recently been published in English. The high quality of the Oxford Classical Texts has been maintained with notable editions of Virgil and Ovid, Cicero and Quintilian, Pliny and Seneca; and there have been important commentaries on several authors, including Cicero's *Letters* and Lucretius, Virgil and Horace, Livy and Pliny, Juvenal and Tacitus.

Our literary scholars rarely espouse new and fashionable approaches to Roman or Greek literature. There have been occasional "structuralist" murmurings (the exordia of the *Iliad* and the *Odyssey* offer a promising starting-point) and the generic approach has won some critical attention. But the literary concerns of our colleagues in English studies have been reflected rather in increased attention to ancient literary criticism; and considerable attention has been devoted of late to ancient fiction, which our more fastidious predecessors affected to ignore. This liberated generation has developed an obsessive interest in the sexual behaviour and for researchers, with scholars from the United States increasingly prominent.

Oxford alone can boast of half-a-dozen recent outstanding Greek historians. In Roman history the eminence of Sir Ronald Syme, notable alike for his analyses of the major historians and for his prosopographical approaches, is unchallenged. Impressive too have been the developments in research on the later Roman empire in the wake of A. H. M. Jones. Cambridge's contribution here has been preeminently in the social and economic fields. Sociological studies have gained prominence; the role of women in ancient society has been increasingly studied, especially in the United States. In general, striking confirmation of the high quality of our historical scholarship can be found by scrutiny of the two annuals, *The Journal of Hellenic Studies* and *The Journal of Roman Studies* and the new, specifically archaeological journal *Britannia*. Classical archaeology, Greek no less than Roman, is a discipline in which new discoveries from all periods are constantly reported on land and under the sea; and its romantic attractions currently lure many bright classical students away from professional study of the texts. It seems certain that the next generation will be less well equipped in linguistic proficiency, but better instructed in appreciation of the material mans, with Manchester to the fore in this respect.

Pauline Stafford

Tuscan experience of difference and distance

I have just returned from a holiday in Tuscany. Perhaps it was the contrast with this particularly dismal English summer, but Tuscany has never seemed so much like God's own country. It was never so easy to understand the fierce attachment to place of citizens of Siena or Florence, nor to see why those contrasts of wooded hills and intensive cultivation in a folded landscape inspired the realistic developments in Renaissance painting. Each year my students wrestle with the problem of explaining the intellectual and artistic developments of Renaissance Italy. On a summer day in Tuscany it is tempting to throw up one's hands and agree with Vasari that it was simply "Something in the air of Italy" which inspired a Giotto. D minus, of course, for any student who turns up such a glib piece of geographical determinism in next term's essay, but lecturers on a busman's holiday are allowed occasionally to nod.

If Italy and Tuscany still retain a physical appearance very different from Britain, what increasingly strikes me abroad is that in many respects a uniform Euroculture is spreading, or at least I increasingly lose the feeling that European countries are "other" or different. The most obvious change has been in dietary habits. The names on the packets may be different, but substantially the same foods were available in Italian shops as in English supermarkets. This has been a change for the better. The colonization of eating norms seems to have been of England by Italy, France and so on, rather than vice versa. Greater affluence and wider availability of travel have done much to reduce the conservatism of the British palate. The result here, as in other aspects of consumer life, is that "abroad" has become much less "foreign".

I am sure that in many respects this is only a superficial change, that patterns of, for example, social or political behaviour remain very different. Moreover my son continually reminds me that some of the most surface aspects of life change across the Channel. He knows he is in France when the houses have shutters and direction signs fall to waist level or below. For the linguistically incompetent among us the most arresting distinction remains as sharp as ever: we are immediately disorientated by the language gulfs which national boundaries open up. But I would still contend that something of the culture shock which is one of the pleasures of travel has been reduced within Europe, especially in the case of our closest Western neighbours.

This seems to me a great shame since I have always felt that one purpose of travel was precisely that experience of difference and distance and with it the hope of broadening toleration and understanding. I stress *one* purpose of travelling. I enjoy all the obvious pleasures of sun, food and wine which motivate the great southward drift as much as the next woman, not to mention the guilty bliss of dropping out of the world of politics, academic work and educational cuts for two or three weeks. (I have little personal empathy with those who need their *New Statesman* delivered to them wherever the summer sun may have led them, or who scour the backstreets of Siena desperate for the fix of yesterday's *Guardian*.)

I am aware too the experience of difference has been far from a constant motive or result of travel. Beer and chips on the Costa del Sol may be castigated, but the Grand Tour was more about experiencing the roots of a common elite culture than observing other societies. The detailed circumstances of travelling and accommodation show how insulated many early travellers must have been from changes in their surroundings; carriages and palaces tend to isolate their occupants. But the most effective blinkers in any age are the cluster of preconceptions and ways of seeing produced by our own environments; our capacity for assimilating difference into our own view of the world is limitless.

Still, as the fact of change and development suggests, something gets through the chinks, our defences are never complete, our own world picture rarely so unitary or lacking in tension as to provide no purchase for new experience. We may use that experience to reaffirm our own identities, cultural or individual. But even that reaffirmation can be a sign of a challenge inadequately deflected.

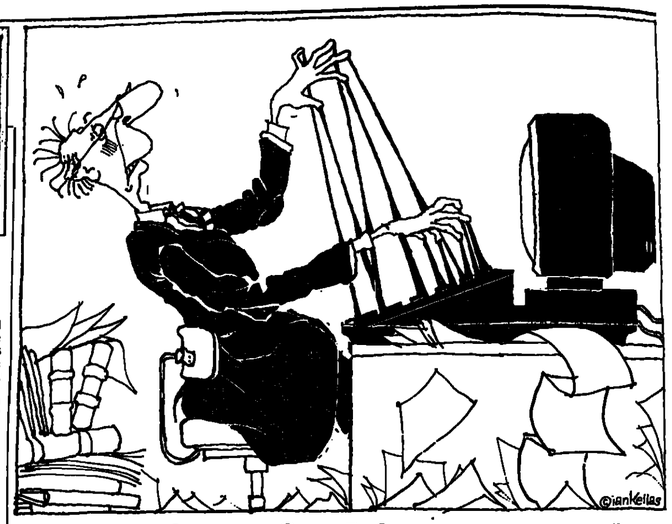
And so I return to the nostalgic feeling that European travel, with its enforced experience of the most basic differences, was once more valuable an undertaking than it is now; valuable in the sense that social maturity, like individual maturity, requires that we recognize ourselves as separate and different, accepting the "otherness" of groups or cultures as valid and without threat. We need to accept this challenge to the view that the world is always and everywhere exactly as we see it through our own intellectual framework if we are to develop a truly tolerant attitude.

What travel no longer provides easily, and has never provided for most, should certainly be an overt goal of educational systems. That basis of toleration developed in a haphazard way by individual experience must be formalized in any modern curriculum which faces the problems of a pluralist and multicultural age. It is a function which history, in common with other social sciences like anthropology, is ideally equipped to fulfil, even if many of their practitioners have failed to recognize the potential.

To recognize that other cultures differ from our own is a salutary corrective to parochialism. To confront that difference in our own society in the past, not merely in its social formations or political structures but in its most fundamental attitudes and beliefs, can bring that lesson too close to home to be easily dismissed. For it is precisely that easy dismissal, the ability not to see or to neutralize what is seen as merely odd or eccentric which threatens the development of toleration in such circumstances.

We travel in the closed carriage of our own asumptions. When the window is opened on a foreign landscape it is too easy to dismiss it as "the mysterious East" or the "superstitious middle ages".

It must be the function of any educational system to confront us with those differences in such a way that dismissal is difficult; that we recognize "the other" as sufficiently like ourselves to demand and enable our understanding, sufficiently different to pose a problem and a challenge to it. In these days of curriculum turmoil, such functions must be kept as much to the fore as the vocational needs of society. We cannot afford to send everyone to Tuscany and anyway crocodiles of school-children would merely carry their group blinkers into a land too superficially like our own. We can and must engage in constructing intellectual journeys even more foreign in their itineraries.



Question of a hit or a myth

Stevie Burges and Nigel Piercy look at the popular appeal and harsh realities of word processor automation

A dangerously misleading myth is doing the rounds (and has even found its way into *The THES*): that the availability of word processors can turn academics into prolific authors, producing perfect, camera-ready typescripts for the printers.

Such myths are not restricted to the education world. We saw actor Peter Barkworth in a recent television drama allowing his fingers to trail across a terminal keyboard to instantly identify and locate wrong-doers (with no mention of the tremendous chores of data collection, editing and preparation for entry such a system would inevitably involve). In roughly similar vein, we find an academic eventually destroyed by an interactive computer program – admittedly assisted by human intervention – in David Lodge's novel *Small World*.

One dangerous consequence of the word processor myth is the implication that an ideal world for academic writers lies just round the corner. The appeal of a-word-processor-in-every-office lies in the hope of substantial saving through a hefty reduction in secretarial staff. Let it be clear that any such saving is made by turning academics into typists, typically rather bad and very expensive typists. It is quite simply the unavoidable fact that every hour an academic spends working on a word processor to correct errors to reformat work, to repaginate documents, and so on, is one hour less spent actually writing, researching or teaching. Much evidence exists to suggest that staff number savings are not achieved through word processor automation in the office.

The most creative part of writing lies in revision and redrafting and there is no doubt that word processors have advantages in permitting documents to be revised. Yet, there is no warrant for two associated myths: that academics can produce typescripts of the same *quality* as those produced by professional operators; or that doing revision and redrafting on a screen is *faster* (drawing red lines on a manuscript to re-position text is actually rather quicker than "walking" text round a screen; defy any academic with a micro to edit on screen as fast as on a manuscript by hand). It we are to think in terms of academics' productivity, there are better ways of improving it than turning teachers into typists.

Apart from not understanding the coding and language requiremens in word processing software to edit, revise and repoginate, it does seem that academics tend to think in terms of the speed of the mainframe computers they use in their research. Most word processors are, in effect, free-standing micros and, compared to the mainframo, they are *incredibly* slow. Often the memory capacity is so limited that the operator can do no more than sit and wait for substantial time periods for the machine to respond.

There is also the separate issue of the damaging "redrafting syndrome", where writers – under the impression that revisions to text can be accomplished at the press of a magic button – go through an endless succession of hard-copy drafts (20 isn't out of the ordinary). There is still much to bc said for a writer to seek the self-discipline of clarifying ideas by hand-drafting and revising, at least until the final draft. There is a high degree of self-indulgence in a cycle of excessive re-drafting, processing and further re-drafting, which is wasteful in the extreme.

A good secretarial service (using word processing where appropriate) is a greatly superior support to academic writing, than putting all academic writers on to word processors.

The cliché "garbage in, garbage out" applies just as much to the word processor as to any other computer. Just for the record, word processors do not proof-read, produce satisfactory subject indexes, identify errors of grammar, spelling, house style or consistency; nor do they automatically format in the required style; these remain unavoidably human information processing tasks, which are highly time-consuming.

Perhaps the most underrated resource in the whole debate is not the machine, or the software, but the operator. Processors (particularly the dedicated machines needed to produce high volumes of immediately publishable output) are actually rather difficult to use. Manufacturers are fond of the acronym WYSIWYG (What You See – on the screen – Is What You Get – on paper), but anyone who has looked to a VDU screen of single-space typing covered with flags and codes to produce a typed page in variable spacing, differing line spaces and justified with "bolda", will realize the gap between screens and paper.

There survives a rumour that because the WP is so "user friendly", making extensive revisions to text is almost fun. Operators don't greet with abandoned glee yet more revisions (that require the complete re-assembly of a document) or the suggestion that it would be "nice" to change from single-spacing to double, or from 12-pitch to 10-pitch or to change the size of the margins; each of these requires not simply the pressing of a magic button but the painstaking re-assembly and repagination of an entire document. If revision requires page-by-page alteration and up-dating then doing the job on a 60-page chapter at two minutes per page is (allowing for machine response time) a *two hour job*; that is the reality behind the myth.

This is then followed by a reprint on typically very slow printers. Given successive drafts and test-prints, paper usage is actually considerably higher than with other systems; the "paperless office" seems an unfortunate phrase.

Both operators and authors prefer to edit and correct from hard-copy than on a WP screen; that inevitably involves a lot of prints. As far as the operator is concerned, this is simply because there is a surprisingly low limit to the time that can be spent reading text on a screen, before human eyes give out.

There is good empirical evidence of high levels of stress and anxiety among WP operators, arising from the increased pressure of their work. The level of concentration required, the mental effort involved in manipulating text and designing the layout of text and tables, put in the context of a busy academic office with phone calls, dictation and correspondence, and student/staff inquiries, make it remarkable that so much good material is produced. Most of the Utopian visions depend on a full-time specialist operator, straightforward text (no formulae, no tables, no figures, no camera-ready layout rules) and an ideal environment (quiet, uninterrupted except for obligatory rest breaks). How many academic departments producing high volumes of published output could honestly claim or promise to provide those conditions?

For academic writing and manuscript (camera-ready typescript) production, there is no doubt that the word processor is an extremely valuable tool. There are, however, dangers in being seduced by the myths of word processing. The consequences of swallowing the rhetoric whole are wasted investment and, more seriously, a damaging reduction in the quality and quantity of academic publications, to say nothing of the unpleasant effects on operators themselves.

Word processors are "glorified typewriters", not mainframe computers. If the functions of academics are to produce original research, to teach and to propogate knowledge, they are better carrying out these functions than operating specialist word processing equipment. The amount of human intervention required both of an author and operator to produce something like a camera-ready typescript in a publishable state is enormous. The pressures on the operator are quite different from those on the typist and anyone adopting the new technology should look hard at the growing empirical evidence available, and think hard about the need to change working conditions, training requirements, allowable hours on the machine, the timing of working hours and the integration of WP operators with other secretarial and administrative work.

The authors are respectively departmental administrator and senior lecturer in the department of business and economics, UWIST.

Left: Jim Learmouth, senior supervisor and Fiona English, indexer on the project using the bound volumes for the missing years. Above: the Glasgow Herald's bicentenary edition in 1983

A newspaper's index finger

The Glasgow Herald Index is providing a new research source for Scottish historians. Patricia Baird, Forbes Gibb and Frank McAdams describe the task

The issue for January 27 is a little tattered. Understandably, for the lead story is of peace with our rebellious American colonists, and the year is 1783. Thus at a stroke the *Glasgow Herald* signalled that it intended to be no mere provincial merchants' newssheet carrying corn prices and high tide tables, and that no better medium exists for the study of contemporary thinking and events than a file of a major national daily.

Not only its venerable age – its two years older than the London *Times* – but the fact than before even the majestic *New York Times* fell in with such newfangled notions, the *Glasgow Herald* was producing an annual index of its contents for the benefits of scholars, librarians and *Notes and Queries*-type dilettanti marks the *Herald* out as an unusual newspaper. Certainly the good bourgeois inhabitants of the Great Western Road in late Victorian years had a formidable appetite for reading matter about Scotland, politics, culture and the wider world.

At the turn of the century, up to 14 columns of book reviews with half as many again publishers' and booksellers' advertisements emphasize a literary hunger and awareness in the city. The 18 years of Sir Robert Bruce's editorship from 1918 saw the arrival of women's interest material and the weekend page; the years of Red Clydeside and *No Mean City*; the first Labour Government; the General Strike; the launch of the Queen Mary and the Depression. Bruce's early years as a parliamentary journalist were a fitting apprenticeship for this time of intense political and social change.

The brave hopes following the Second World War were mirrored in the *Herald*'s wider attitude to world events and an open reporting style. In 1958, news assumed its rightful place on a front page previously devoted to Births, Marriages and Deaths. From 1980, as the second century of the newspaper's life was drawing to a close, electronic technology replaced traditional printing methods and the *Herald* moved into new premises possessing some of the most modern plant in Britain.

Unfortunately, well before this – in 1968 to be precise – the management of the time decided to discontinue the index which had been published since 1906. The exercise was extremely time-consuming; production costs of compilation were equally heavy; the entire operation was not readily seen as cost-effective. From that point onward, the *Herald* library has had to maintain and grown to rely on an internal information inquiries received by the editorial staff have been referred to the library over the years but the cuttings service, seen as an expedient to the demise of the index, has grown exponentially as the scope of the newspaper expanded, to swamping proportions. A certain nostalgia for the handy bound volume of the 1960s gained strength as did appreciation for the fact that convenient access to the files of the newspaper could best be achieved by retrospective indexing.

In April 1984, the *Glasgow Herald* approached its neighbour across George Street, the Department of Information Science and the University of Strathclyde, seeking funding and expertise to index the newspaper from 1969 to 1984. Initial representation by the department to the Manpower Services Commission community programme scheme met with encouraging response and a submission for funding was made in June 1984. The proposals were deemed to satisfy the checklist for assessment of community benefit and the entire scheme was approved in August 1984.

Sponsors of such programmes span many organizations and schemes proposed by the two universities in Glasgow include archive listing; the establishment of a computerized information retrieval system in prosthetics and orthotics for those caring for the physically handicapped; examination of university facilities with a view to producing a taped guide to the campus for physically handicapped students; computerizing data on careers, appointments and jobs; study of river pollution resulting in documentation on the dangers of the indiscriminate use of chemicals.

Recruitment to such schemes is through the Professional and Executive Register and Job Centres. The sponsor provides full job descriptions and imposes the necessary job speci-

workplace are consulted, their approval of the scheme being an essential precondition. Salaries and conditions of service must be commensurate with the work being done and the proposal must not cover work which would have been carried out but for cutbacks. Massive expansion of the community programme is to be announced after the Budget, which, along with other initiatives, will combat rising unemployment. At present, 130,000 jobs at a cost of £560 million is the community programme ceiling.

Funding for the *Glasgow Herald* index project, amounting to £170,000 for the first year, from three sources – the MSC; the University of Strathclyde and George Outram & Co Ltd, owners of the *Herald*. If, as seems likely, the work extends beyond the first year, an application for further funding will be made. Meantime 34 people are employed on the project, mostly part-time, and with no particular indexing background or skills.

Indexing rules have been formulated in accordance with recognized international authorities and specific training is given on a day-to-day basis and in more formal training sessions every fortnight. Bound volumes of the *Glasgow Herald* for the years in question have been kindly lent by Glasgow's Mitchell Library.

Given the raw material, the indexers' task is the compilation of a database of index records using IBM personal computers and in-house developed software. The university's mainframe will be utilized to sort out and merge what, at a conservative estimate will amount to 70,000 records per year.

A similar indexing project is in operation at Edinburgh University to index *The Scotsman*. This project which pre-dates the *Herald* project by more than a year, is also MSC-funded. Advice and guidance from *The Scotsman* project supervisor have been plentiful, freely given and have proved so valuable that closer cooperation between the two projects and with subsequent similar ventures seems inevitable and eminently sensible.

The aim is annual volumes for the years 1969 to 1984 forming a sixteen volume set and bringing the existing index up to date. Alternative formats to a printed index are also being discussed and developments in electronic publishing will, perhaps, after the end of this project, lead to on-line indexing services.

Recent advances in technology have seen *The Guardian* become Britain's first national newspaper to go on-line in full text. It joins an impressive array of international bed-fellows including the *Washington Post*, *The Economist* and *Keesings Contemporary Archives* stored electronically on Datasolve's World Reporter Service. This major innovation in the United Kingdom heralds the future in storage and retrieval of news information. Full text news databases would obviously require appropriate indexing services for retrospective searching.

On the question of full retrospective searching, given that *The Times* index covers all but five years of its life going back to 1790 and that current efforts are being made to close that narrow gap, suggestions have been mooted that the *Glasgow Herald* should be similarly indexed. A grander scheme covering 1783 to 1905 seems the logical conclusion. The 1783 volume could then take pride in being the *only* newspaper index to have an entry under United States of America at the moment of its inception. Lord Grantham, then Foreign Secretary, writing to the Lord Provost of Glasgow with news of the Paris treaty recognizing US independence, concluded: "I send your Lordship immediate notice of this important event, that it may be made public to the City without loss of time."

A copy of the letter allowed John Menmons, the *Herald*'s first editor, not only to fill a space reserved for a story which did not appear, but to present to the citizens of Glasgow on January 27, 1783, his new newspaper carrying the fortuitously-timed story. Some scoop, as James Gordon Bennett might have said.

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Sociology: spreading the gospel

Sociology and sociologists are under fire and so they should be. A central concern of the discipline is the continuous, critical examination of "commonsense" knowledge and its sources. This is the means by which the rate and direction of change in society is controlled by those who have power in that society. In other words, Marx's, "the ideas of the ruling class are, in every age, the ruling ideas". If this is true, it follows that sociology and sociologists will always be disliked by the Establishment, be it in Washington, Moscow, London or wherever.

So what makes sociologists so unusually sensitive at this time? The answer lies in the much more openly aggressive ideological stance adopted by the "new" Establishment.

One way of coping with the new situation is to involve a wider audience in gaining an understanding of the subject, what Max Weber called "that science which aims at an interpretive understanding of social behaviour in order to gain an explanation of its causes, its courses and its effects". In particular, with the present Government's attack on non-vocational HE, sociology can be taught as a part of a larger package which is highly vocational – for instance, management studies.

There are sociologists who argue that service teaching of this kind does not have a large enough allocation of time in the total package to ensure a basic understanding of the fundamental principles. In addition, they claim that such time constraints lead to surface skimming which, as far as the reputation of the subject goes, does more harm than good.

Students in this situation adopt one of two stances, usually depending on whether they are full time or part-time students. The former will go through the motions taking no real interest and remaining totally passive. The latter are usually more open in their opposition to what they see as a waste of valuable time.

Another argument is that efforts to spread the gospel of sociology among the infidels produce an over-size teaching load with the inevitable consequences for research. A gulf appears between those doing research and staying at the forefront of the discipline and those "preaching to the unconverted", who lose contact. These service teachers could then find themselves reproducing out of date work increasingly irrelevant to the experiences of their students.

The pessimists are opposed by those who support the entry of sociology into vocational HE. They do not accept the arguments of those who yearn for a return to a time when academics were left to pursue their eternal search after truth irrespective of the use to which that truth may be put in the marketplace and elsewhere. They see the opposition to their work as a stimulating challenge. They attempt to teach their subject by methods strongly dependent on case study techniques relating the examples and argument of current affairs. To this group the NUM strike was a gold mine, full of precious nuggets that could be used to develop understanding of the methods and use of sociology in modern industrial society.

The major problem with this approach is that without careful guidance (which can only come from extensively detailed preparation) seminars conducted along these lines became party political arguments and exercises in paraphrasing *Sun* editorials; thus of little use in stimulating intellectual examinations of society.

On September 4, a one-day conference was held to examine the many problems associated with teaching sociology to non-sociologists. All at that conference and in HE in general would do well to remember the Paris students' slogan of May 1968: "We refuse to buy the right not to die of hunger by running the risk of dying of boredom".

Keith Lambe

The author is lecturer in the department of management and business studies at Oxford Polytechnic.

Two ways in which schools and colleges can work together more closely

Back to school: a test of cooperation

Schools and colleges have much to offer each other, especially now with college staff facing demands to update their classroom experience. Many primary schools are facing contracting rolls, static staffing and little input from fresh minds. The benefits to both parties of such cooperation are many and various. However, forming such a link is not without risk, both personal and institutional. None the less, all worthwhile relationships involve a degree of risk and some pointers to a successful cooperative venture can be drawn from the following example of one such association.

This cooperation involved a lecturer from the nearest college of higher education and the headteacher of a three-form, 5 to 10 years, rural first school, working with his class of 8 to 10-year-olds.

Initially it was the perspectives of the lecturer and head which dominated, and would eventually make or break the venture. Also, from the school's point of view, there had to be an accepted need for the involvement of another professional, in this case in the development of media work. The lecturer involved, based in the college media centre, was officially employed part-time and used her *own* time for the commitment she gave the school. This turned out to be one afternoon per week for five terms, a considerable input.

Apart from the initial difficulty of matching schools and colleges, teachers and lecturers, there are a number of other negotiating phases involved which in retrospect we can now identify and reflect on.

The initial negotiations were critical. There were many unspoken requirements, reservations and fears on both sides, which at first meeting we felt unable to voice. Also, each of us had specific ideas on how a cooperation could work; what separate aims and objectives it would enable us to reach and what sort of personal rewards it would bring. Only if a majority of these assumptions could be satisfied would it be possible to proceed. At this stage we were carefully sounding out each other's motives and trying to identify a mutually agreeable framework. So we drew up a list of the expectations we each considered important.

We feel it would be of help to others contemplating such a venture to draw up their own lists and discuss these at the negotiation phase. This would help build trust and understanding, vital to the sort of two-way cooperation this kind of association demands.

It is also useful to identify some of the fears we had because they are relevant to similar risk situations. They underpin the development of any team-teaching or other cooperative venture and if recognized can remove potential difficulties.

So the initial negotiation phase was critical with much time being spent meeting, talking around the ideas we had and coming to a mutually agreed decision about a cooperation. We felt fairly sure after a few minutes that we could work together. We then entered a planning phase where we decided initially on a short term programme, one afternoon a week on a specific project lasting for one half term. This enabled each party to withdraw from the situation without loss of face if at the end of the period had it proved unsatisfactory. At this stage there was time for the head to negotiate with staff, organize space, time and children and for the lecturer to organize ideas, materials and her own time.

The third phase saw the project in action. We both felt exposed but we built in time to look at and discuss the children's work, their problems and successes, and our own opinions on the way the work was going. This last was, we found later, absolutely essential. The lecturer deliberately avoided any view of the pupils' previous writing as she wanted to work without preconceptions about their abilities. This tied in with the notion of working visually, so past performance in written work was scarcely relevant.

The headteacher was able to supply judgements as to the "quality" of the work because of his experience of the children. Discussion about the language and conceptual processes helped us appreciate both the nature of the children's work, the possible future paths of the project and refined our own ideas about media work in primary schools. An advantage of the team-teaching was that it also reinforced our commitment to the project through the success not only of the children but the obvious professional benefit to ourselves.

The organizational problems were overcome. The way we as teachers organized time for our discussions every week meant a reflexive and dynamic development of the ideas which flowed for 18 months and stopped only because of the headteacher's change of school.

We found, once into the work, a fourth phase. This was an ongoing process of evaluation, planning and teamwork inspired by classwork; visits; children's questions and interests, and our own developing philosophy about media work. It was tremendously supportive and gratifying both for children, the school (there was a significant "ripple" effect) and ourselves.

We accept we have been fortunate to make contact at a time when, in personal terms, we were both ready for a venture such as this. It was coincidence we both attended a primary media studies conference in Leicester. While we did not actually meet there, we both made the conscious decision to follow up what was obviously a shared interest in primary media studies.

There is a need for colleges and schools to work together, but it seems unfortunate that we have to rely on such haphazard matching arrangements. It is true that in some college/poly departments a conscious effort is being made in this direction (perhaps as a result of recent DES publications' eg "Teaching Quality"). However, there is need for positive action from both sides to initiate these important links.

It is essential for the discussion and planning to take place so that a school does not appear to "take" from the college without giving anything back or that the college does not "use" the school (say for research purposes) without sharing time and expertise in an open and unselfish way. The mutual benefits are many and significant. Some of the issues raised above may provide useful pointers in initiating discussion between other teachers and lecturers.

Jeannette Ayton and Paul Hussey

Jeannette Ayton is lecturer at Bretton Hall College of Higher Education, Wakefield. Paul Hussey is head of Russell County First School, Milton Keynes.

EXPECTATIONS

SCHOOL HEAD

Felt media elements in the curriculum are important both personally and for the children. Had enthusiasm but acknowledged limited personal experience. Therefore needed to "import expertise".

Saw possibilities for curriculum innovation together with the development of an inter-disciplinary approach.

Welcomed potential for personal professional development and feedback.

Had commitment to philosophy of team teaching and saw this as a way of developing it through practice and example.

Reinforces staff development issues – seeing other practice, talking about techniques, strategies and learning situations with other professionals.

Importation of "new face" brought an extra dimension to a school where it was easy to feel professionally and geographically isolated.

Benefits to children:
- **new personality**
- **small group organization**
- **new subject matter**
- **enhanced skills, content, techniques and attitudes.**

COLLEGE LECTURER

Reestablish and update classroom/school experience specifically related to developing and confirming a problem-solving approach.

To test in the classroom curriculum ideas developed with college students both on media content and on teaching/learning methodologies.

Wanted feedback for college students both on potential for media work in the classroom and its relevance for young children.

Develop pupil competence in media literacy, eg. being able to identify and interpret visual language.

RESERVATIONS

SCHOOL HEAD

Conscious of lecturer's voluntary status, she is not paid therefore no "boss-subordinate" role relationship exists. Roles are not defined. What happens if something goes wrong?

No idea of lecturer's classroom skills or teaching style. Therefore not confident of potential benefits for school, though one should assume a teacher-educator is competent.

Feeling vulnerable, due to lack of specific media expertise meant a conflict in traditional headship role because there was an initial need to retain control of the direction of the project.

COLLEGE LECTURER

Reservations about how easy it would be to be accepted.

Had to bridge the credibility gap between talking about teaching and operating at the chalk-face.

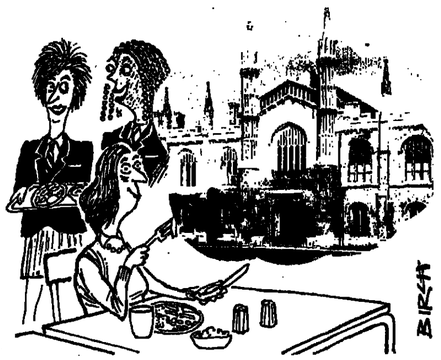
Overcoming a known personal preference for teaching older age groups.

Back to college: high jinks at High Table

Last Michaelmas Term I was lucky enough to hold an Oxford Education Fellowship; I was doubly lucky in that it was at Keble. Although nothing could spoil my time there, bureaucratic difficulties caused by minor local officials did tarnish it in anticipation.

Such awards, intended for teachers engaged in sixth form work and research, should, of course, carry a statutory right to secondment. Yet for "discretionary" grants by local education authorities, one should read "arbitrary", and it is ironic that we have a Secretary of State for Education committed to raising the standards of teachers who does nothing to promote mandatory secondment.

Since such fellowships are so heavily oversubscribed, most colleges will only interview candidates who have provisional guarantee of leave; even this help is refused by some authorities, thus giving a great advantage to staff at the best independent schools where sabbaticals are the norm.



Most of my time at Keble was spent alone, quietly working in libraries. Apart from occasional lectures, such as those celebrating the Wycliff centenary and Professor Levi's inaugural, I also attended some literary theory courses. The most entertaining of these included a consideration of the latent feminist rebel imagery of *Jane Eyre* indicated by the heroine's role-reversing, aggressive use of such phallic symbols as pens and knitting needles! The following week, one undergraduate arrived with her hair piled on top in a kebab arrangement, skewered in place by two pairs of knitting needles and a Biro.

The other course, given by a cult figure to an often sycophantic audience, was largely pure marxist indoctrination. This would not matter if it were not for the present illiberal atmosphere in which it would be unthinkable for a British academic to be indulged to abuse his privileged position by preaching, say, fascism or fundamentalism.

My most unfounded misgivings concerned High Table, where I expected conversation to be witty, recondite, out of my class. Except on Guest Nights, it tended to be no better than that of any staff-room: indeed, it was often endearingly reminiscent of prep schoolboys'. For example the comment "I'm not dining in tomorrow, I'm going to see *The Company of Wolves*" brought the response "That's no different from dining in". When John Selwyn Summer was visiting preacher we sang a hymn with the line: "Our earthly rulers falter".

Although I loved the innocence of this third-form humour, I often found (apparently) serious remarks much funnier, such as the geography fellow being asked: "How do you recruit geographers nowadays? Is it still a method of entry for oarsmen too stupid to read anything else?" and, in particular, an earnest discussion as to whether senior members of the English or philosophy faculty were the more prone to insanity.

In the Fellows' Dining Room there was a ritual of complaining about the central heating. Comments which were almost formular sometimes even taking precedence over Grace. I overheard one fellow bidding goodbye to a guest with the words: "Now remember, before you leave the premises, you're to moan about the central heating."

This man, probably as soft-hearted as any in the SCR, sometimes adopted, for his own amusement, a totally unconvincing abrasive persona, expressed in a series of rotating hatreds: the NUM, Mrs Thatcher, missionaries. During my first week it was architects and I was surprised to hear his assertion of the private habits of the designers of the new block which, he claimed, had distracted them from their drawing-boards.

On Guest Nights, anecdotes became generally more amusing/indiscreet/scurrilous as the port circulated and many belied regrets sometimes heard that the age of the Great Eccentrics is past. Experiences were pooled about a fairly recent philosopher who, during tutorials, would react to especially painful essays by crouching under the table, whimpering, or even tiptoeing out, whispering to the solitary student left reading aloud to himself, "Don't let me disturb you; just carry on without me."

One of the most colourful local characters at present, a member of another college, having been converted to an obscure oriental religion, has made his room into a shrine where students must remove their shoes and socks before tutorials; I was told about the charming dean of the college whose rules permit fellows to keep cats but not dogs. Of his four-stone, barking, tail-wagging companion, he says; "I am the ultimate interpreter of the rules of this institution. What I designate cat is cat. This animal is a cat."

Before leaving, I was asked what I would miss most. Apparently, education fellows' answers are always the same, only their order of priorities varies: the high standard of living, SCR company, one's own study in which to work, undisturbed. To me, unquestionably, the sheer beauty of Oxford comes first. Every time I walked through the university area, I was struck afresh by its loveliness so deeply that I cannot imagine ever taking it for granted. And for me, the loveliest place in this loveliest town is Duke Humphrey, the manuscript room of the Bodleian. At winter dusk it is an enhanced place. I once thought I met a ghost there. In the next carrel, one late autumn afternoon, there were persistent sounds of a reader quietly turning pages, writing, shifting his position. But the chair was empty. Probably it was just the rather odd accoustics of an ancient wooden building. However, if it was the shade of a former scholar, I am not surprised that it was unaccompanied by any unpleasant associations of haunting, for the spirit, if such it was, had returned to a place of serenity and contentment.

On my return, I received a letter from a professor in a provincial university. Anxious that I might find normality too much of a shock he wrote he hoped I would be "too sensible to grieve over Oxford as a lost paradise in the way quite a few people, even in those subdepartments of paradise, the provincial universities, do all their lives."

I cannot quite agree with the implications of another of his comments: "Reality must strike you as cold after the cloistered warmth of Keble." I do not accept that the mundane, sad, even squalid aspects of life in the urban industrial West Midlands suffering so badly from the Recession are in some sense, fundamentally "real".

I reject the idea that there is more essential "reality" here than in the company of those engaged in the pursuit of excellence in glorious surroundings and whose peculiar charm lies in the combination of high-thinking with, frequently, a childlike gaiety.

Alma Evers

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BOOKS

A meeting of logical minds

by David Watson

Alfred North Whitehead: the man and his work
volume one: 1861–1910
by Victor Lowe
Johns Hopkins University Press, £26.40
ISBN 0 8018 2488 5

Alfred North Whitehead (1861–1947) has two distinct reputations, usually linked with two phases of a long and remarkable career. In the first he is regarded primarily as a mathematician, the collaborator at Cambridge with Bertrand Russell on the three volumes of the *Principia Mathematica* (1910–13). There then follows an interim period, spent at the University of London, where his interests are seen to diversify into broader aspects of the philosophy of science. The decisive break came in 1924, when he was invited to Harvard as a professor of philosophy and embarked upon two decades of rich metaphysical speculation.

Whitehead's contemporary fame rests chiefly on his publications from the later years and is often surprising to historians of British philosophy, by whom he is regularly confined to a minor role in a mathematical cul-de-sac on the route to logical positivism. In North America his popularizations (*Science and the Modern World*, 1925), public philosophy (*Adventures of Ideas*, 1933) and technical works (the "process philosophy" articulated most fully in *Process and Reality*, 1929) are major cultural and philosophical landmarks. The latter are of more than historical interest, especially to American theologians, as evidenced by the vitality of the journal *Process Studies*, now in its fourteenth year.

Victor Lowe has long been recognized as one of Whitehead's most successful expositors, as well as author of the influential thesis that there are fundamental continuities between the different phases of Whitehead's career. As he put it in *Understanding Whitehead* (1962):

> Throughout his forty years as a mathematician, in his conversations and reflections he had been touching on the various conditions involved in human existence. The exchange of a mathematical for a philosophical professorship was Whitehead's opportunity to transfer his habitual pursuit of maximum generality to the widest field there is.

The first volume of this long-awaited biography covers Whitehead's life up to his move from Cambridge to London in 1910; a break which Lowe suggests arose from feelings of personal as well as intellectual constriction within the closed world of Cambridge mathematics.

Both aspects of the biography's aims – personal and intellectual – were hindered by Whitehead's extreme reticence and aversion to self-promotion. Whitehead saw to it that no personal material (including correspondence with family and colleagues and the drafts of his publications) survived him. As a result important material, like the correspondence with Russell during the writing of the *Principia*, exists at most in the half preserved by one partner. Lowe was instead thrown back on official and semi-official records, interviews with Whitehead's friends and family (especially his son North and daughter Jessie) and his own powers of sympathetic conjecture.

That the biography works at all is a tribute to what he has been able to make of these incomplete sources. It also explains some of its tone, which can only really be described as moral hero-worship. Reading this first volume, with its mixture of admiration for the subject and attempted comprehensiveness (including potted biographies of teachers, school and university friends, and other individuals who just happened to be around at the time) reminds me of those multi-volume biographies of 19th-century bishops – a role for which Whitehead's upbringing, in a school run by his father in Ramsgate, at Sherbourne, and finally as a scholar at Cambridge, might eminently have fitted him. It did his brother Henry. What saves the book from solemnity is Lowe's puckish asides ("I have become quite fond of uncle Henry") and his occasional self-conscious awareness of the clichés demanded by the genre. This, for example, glosses his explanation of Whitehead's devotion to Kent and the Isle of Thanet:

> We all carry in us something from the physical character of our childhood surroundings, but for us those surroundings are not steeped in history. (Forgive the hackneyed phrase; it is exactly right.) When I was born in Cleveland, Ohio, the city had existed for little more than a hundred years.

The chief interest of this first volume for most readers will be in its fresh light on Whitehead's professional and personal relationship with Russell. Philosophically, the period shows two original minds working towards a similar but not identical goal. Both saw the *Principia* as in effect second volumes of their earlier independent work: Whitehead's *Treatise on Universal Algebra* (1898) and Russell's *Principles of Mathematics* (2nd ed. 1903). Both anticipated a Fregean notion of mathematics as extending and developing deductive logic, while Russell was perhaps more ambitious about the philosophical scope of this possibility. For example, he pushed the theory of relations further than Whitehead would have been prepared to accept, exposing a disagreement which the programme of the *Principia* was able to side-step. Russell believed in what Lowe terms atomistic pluralism, one feature of which insists that relations and their terms exist independently. Such a proposition runs wholly counter to Whitehead's mature conception of an idealistic continuum of reality (which he called "organism"). As Lowe explains the position:

> I asked him in 1941 about his past opinions; he answered that the doctrine [of independent relations] was never the foundation of his own thought, and that during the collaboration he neither agreed nor disagreed with Russell about it.

A. N. Whitehead

The famous collaboration was thus across a limited range, which Lowe's deft account does much to clarify. Contemporary advances in symbolic logic, particularly Peano's system which both men went to Paris to hear expounded in 1900, provided a framework for the demonstration, in Whitehead's words, that mathematics is "the science concerned with the logical deduction of consequences from the general premises of all reasoning". Both men, of course, subsequently moved on from this position; Russell to his Wittgensteinian view of mathematics as a collection of tautologies and Whitehead to his mature cosmology, while it is significant that the fourth volume in which Whitehead was to extend the demonstration to geometry was never completed. Equally, Lowe is able to demonstrate that their philosophies of mathematics overlapped rather than coincided ("to Russell mathematics was only a prolongation of logic; to Whitehead logic was the essential first chapter in a book of mathematics"). All in all it is clear that one of the most heroic synthetic attempts in the history of modern western thought depended on the more or less equal contributions of two very different personalities, and that Lowe is correct to question the general assumption that the *Principia* was "Russell's book".

They were an odd couple in other ways too. Lowe points to the difference in age (11 years), the master-pupil relationship (which contributed to Russell's constant need for and receipt of encouragement from the older man long after their professional relationship should have put them on an equal footing), the differences in temperament (Russell was gregarious and "a superb intellectual athlete", Whitehead a "loner" with "an almost complete lack of egoism"), and, perhaps most significantly, the difference in class. Russell was an aristocrat with private means, while Whitehead retained a deep sense of identity with his section of the Victorian Anglian middle class (he was even fashionably tempted to convert to Catholicism).

Of all the people close to Whitehead, his wife Evelyn Wade was the most like Russell. She was a flamboyant and cosmopolitan daughter of a failed army officer who inherited a pedigree, but no assets, from Irish lands. Russell's close collaboration with Whitehead (the two families often shared houses while the men were working), his growing disenchantment with his first wife Allys Smith (Lady Ottoline Morrell was not yet on the scene), and Evelyn's frequently expressed frustration at her husband's lack of social sensibilities or aspirations, have led to the common assumption that they had an affair. Lowe scrupulously marshals all of the evidence, including Russell's dramatic protestation in his *Autobiography* (1967) of a great surge of sympathy for Evelyn, and concludes, plausibly, that Russell almost certainly gave her money but that the affair was not consummated. His final comments on Whitehead's role give us perhaps the most revealing statement of his own estimate of Whitehead's character:

> The fact that early on, one partner fell in love with the other's wife, makes their long collaboration yet more unusual. Whitehead could not have been blind to the emotional fact. His self-discipline made it possible for him to act as if it were not so, and to put up with vague feelings of unhappiness about it. I do not think he probed the situation at all. What a wise person he was!

Lowe's biography is so obviously a labour of love, and based upon such meticulous scrutiny of the available evidence, that it seems churlish to suggest that the achievements of volume one are limited. In its stated aim of explaining the nuances of the first part of Whitehead's career to American readers – his family, his school, his experience with the unreformed mathematical tripos and the "Apostles" at Cambridge, and his steady climb through the ranks of a British academic career – I am sure that it will succeed admirably. Its advocacy for Whitehead's role in the collaboration with Russell, as well as its analysis of his first moves towards philosophy of science and "mathematical cosmology", are also effective. But we will have to wait patiently for volume two for confirmation of his view of Whitehead as "the most powerful systematic thinker philosophy has seen since Hegel".

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A giant translated

The Philosophical Writings of Descartes, volumes one and two
edited by John Cottingham, Robert Stoothoff and Dugald Murdoch
Cambridge University Press, £27.50 and £8.95 (volume one); £30.00 and £9.95 (volume two)
ISBN 0 521 24594 X and 28807 X; 24595 8 and 28808 8

Descartes is universally acknowledged to be one of the great founders of the modern intellectual world. He is regarded not only as the father of modern philosophy, but also as the person who most ably argued the mechanistic conception of the universe, replacing the organic conception of nature embodied in the philosophy of Aristotle. It was Descartes who cemented a view of causal interaction in the natural world which, despite the achievements of modern physics, remains the ordinary man's conception to this day.

He is, then, a giant, and acknowledged as such. It is somewhat surprising, therefore, that until recently many of his major works were not available in English translation. Two factors had an important inhibiting effect. One was the lack of scholarly interest in the history of the natural sciences (a condition which was happily changed) so that Descartes's scientific writings – in this country often regarded as having been overtaken by Newton – were unjustly neglected. Second, the way in which the history of philosophy has been taught too often assumed that Descartes's *Meditations* is a self-contained philosophical work unrelated to his natural philosophy which can be satisfactorily studied without reference to his scientific ideas. The incorrect history to which this leads may be illustrated by consideration of the distinction most usually discussed with reference to Locke, that between the alleged primary and secondary qualities of objects. The most casual acquaintance with Descartes's scientific works such as *The World* or the *Optics* makes it abundantly clear how central this distinction was to the whole Cartesian enterprise. It makes clear, too, the emphasis which Descartes placed on the claim that there need be no resemblance between an idea and the cause of that idea in the world.

Happily the traditional picture of the history of philosophy is now weakening, as the traditional picture of the history of science weakened some decades ago. These new translations of Descartes go a long way towards providing an English edition of his works which meet the difficulties to which I have referred even though, for reasons of space, the editors have not supplied complete translations of every work.

Until now the standard edition of Descartes in English has been that of Haldane and Ross (1911). The new edition includes all of that edition in entirely new translation and also substantial extracts from Descartes's *Early Writings*, from *The World*, *Treatise on Man*, *Optics*, and *Descriptions of the Human Body*. Of considerable importance, too, is that the selection from the *Principles of Philosophy* includes much not in the Haldane and Ross edition especially from the central section "the principles of material things". The major omission is the Correspondence, of which there is already a very useful partial translation. It would, however, be very worthwhile for the publishers to follow these enterprising volumes with two further ones devoted to the Cartesian correspondence.

The translation is clearly the product of excellent cooperation between the dispersed translators (two in New Zealand and one in Reading) and reads well in modern English, while leaving unclear what a good translation should, namely that which is unclear in the original. Also, and crucially in the case of Descartes, the translators have worked from the original text, whether Latin or French, taken from the justly renowned revised edition of Adam and Tannery, published in Paris 1964–76. Each volume is in a sense self-contained – for example, they each have an index – but it is unlikely that they will be purchased separately as the *Discourse on the Method* is in one volume and the *Meditations* and the *Objections and Replies* in the other. The paperback versions should nevertheless achieve excellent sales and the hardback become the standard library holding, albeit that we shall still have to turn to other translations for the complete text of several works and to yet others for the text of the *Geometry* and *Meteors*.

G. A. J. Rogers

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BOOKS

Conclusive evidence of change

Christianity in the West 1400–1700
by John Bossy
Oxford University Press, £12.50 and £3.95
ISBN 0 19219174 8 and 289162 6
Luther's Theology of the Cross
by Alister E. McGrath
Blackwell, £15.00
ISBN 0 631 138552

Apart from the arena of 19th-century history and contemporary politics, Reformation Studies in the widest sense have come to comprise the most fruitful area of research the humanities discipline can offer. These two books, one of them by an established professor of history at the University of York and the other from the pen of a rising Oxford scholar intrigued by the doctrinal complexities of the period, effectively symbolize the trend. Professor Bossy's work is a scintillating, interpretative essay in the lively Anglo-Saxon genre continental European scholars and their American disciples find hard to evaluate as scholarship because it is both readable and provocative. By contrast, Dr McGrath's monograph, although a significant foray in terms of its research achievement, can beat most German studies at the game of concentrated focus in tunnel vision.

Professor Bossy has selected a large canvas and refused orthodox brushwork. The medieval Christianity he depicts is not a touched up Roman *hierarchical institutionalism*, but the basic *congregatio fidelium* comprised believers and those sceptics prepared to conform because of their desire for community. If Anselm of Canterbury provided a theological background to assure mankind of redemption in Christ, the benefits of that satisfaction had to be made apparent by the Church in a life open and available to the whole medieval community. Parish and fraternity grew up to serve society with hallowed rituals of greeting, meeting and eating. Linked to the all pervasive sacramental principle, the approach dignified baptism and penance, marriage and the mass; and although it was the canon lawyers, not the scholastic theologians, who inevitably manipulated those sacraments related to social institutions, the encouragement of peace and brotherly behaviour that resulted has to be hailed as a social miracle in any age. Professor Bossy is certainly at his best in analysing the collective existence of medieval man as the Church came to terms with kinship to become a remarkable force of social cohesion. The Seven Deadly Sins afforded community ethics real scope and fostered a corporate understanding of penance. With a wealth of literary allusion from Chaucer to Graham Greene moreover, topics as diverse as carnival and purgatory, brothels and witchcraft, when carefully related to the overall theme, provide the reader with fresh insights to deepen his appreciation of a well-worked period of man's past.

Although arguably not so good in his reassessment of the great crisis in Christendom that was 16th-century religious revival, Professor Bossy's judgement that "Reformation" is itself a difficult term because it aligns too readily with the view that "a bad form of Christianity was being replaced by a good one" will surely be welcomed. The fact that he does not intend to change the word is, moreover, both diplomatic and sane, for although these pages will start many a hare for historians to hound, the author's vision, and by no means his pedantry, will provoke. For this essay is never too high-flown to delve into actual social behaviour, and when noting the far-reaching change that overtook religion in the 16th and 17th centuries, Professor Bossy is well aware that, however interpreted, sacraments had to be retained if the Church was to remain a social body. Not surprisingly for some, he turns at the last to Richard Baxter's 1,000 folio behavioural theology, the *Christian Directory* (1673) to indicate three centuries of social transformation. Nevertheless it is his own language differential that, at the last, provides conclusive evidence of change. In 1400 the word *religion* meant either an order or rule, or in humanist hands "a worshipful attitude to God, or a respect for holy things" (as in classical Latin). By 1700 the world was teeming with *religions* because of the fissiparous process of fracture in Reformation. And if *society* in 15th-century understanding meant fellowship in community, by 1700 it was merely an abstraction lacking the warmth of human contact and kindness.

To turn now to Dr McGrath is to enter the very different world of restricted inquiry – albeit the kind of inquiry that ultimately enables history as generalization to be written at all. In large measure Reformation was generated by spiritual experience, and the experience of Martin Luther proved more epoch-making than most. Yet its exact nature and precise dating have not hitherto been resolved, at least to the satisfaction and standards of Dr Alister McGrath, whose intense and intriguing study will no doubt prompt further controversy for those with the stamina to follow such argument. His work is certainly convincing if the reader is prepared to sweat at his task and play hide and seek among the footnotes; but once strife is over and battle done, most will hanker for the Bossy's of this world, even at their most outrageous.

Peter Newman Brooks

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The Gates of Hell **by Albert E. Elsen (Stanford University Press, $39.50 and $16.95) is a study of August Rodin's work on a massive sculptured portal. Above is one of Rodin's ink studies for the work.**

Universal praise

The Image of Peter the Great in Russian History and Thought
by Nicholas V. Riasanovsky
Oxford University Press, £29.50
ISBN 0 19 503456 2

For at least a century and a half after his death Peter the Great overshadowed the history of Russia as no other of its rulers has ever done. To generation after generation he seemed the superhuman energizing force, the quasi-divine figure, who through his vision and his unsparing effort had dragged Russia into the modern world, making her a real and creative force, even in a sense making his people for the first time fully human.

A study of how literate and historically-conscious Russians saw the great sar, and of how their perceptions changed between his age and ours, is thus a very worthwhile undertaking, one which can throw light on many aspects of changing Russian intellectual life over a long period. The extent to which the preoccupations and prejudices of the present influence our interpretation of the past; the way in which our knowledge of the recoverable past has broadened during the last century or more with the emergence of the professional historian; the enormous question of the role and importance of the individual in history as opposed to impersonal forces and alleged inevitabilities which no "great man" can resist: all these are clearly relevant to the subject.

Professor Riasanovsky in this scholarly study is somewhat too reluctant to grapple with these wider aspects and implications. He limits himself to discussing systematically, within a purely chronological framework, the views of Peter put forward by a long series of Russian writers (novelists and critics as well as historians) and illustrates these views by quotation, often at length. Inevitably this means a good deal of repetition, as essentially similar ideas are voiced by one after another of the writers in question; and this at times gives the book a slightly laboured air. But there is no mistaking the thoroughness with which he has covered the ground. The only significant previous effort of this kind, that published in Russian by E. V. Shmurlo in 1912, dealt only with the 18th century and was never supplemented, as Shmurlo had intended, by a volume or volumes dealing with writing on Peter produced during the 19th and 20th centuries. If therefore Professor Riasanovsky has not completely exploited the wider possibilities of his subject he has certainly laid very solid foundations upon which in time a more analytical and philosophical and less purely descriptive treatment of it may be based.

What will impress most readers most forcibly is the unanimity with which generation after generation in Russia returned a favourable verdict on Peter. The panegyrics of Prokopovich and Buzhinskii in his own day were echoed by a galaxy of writers – Sumarokov, Derzhavin, Lomonosov – throughout the 18th century; and though by the middle of the 19th there can be seen a growing realization that much of his work was a continuation of efforts already visible under his immediate predecessors it is impressive to see how, in spite of the doubts and criticisms voiced by the Slavophiles, men who agreed on little else could be at one in their admiration for the tsar. The favourable attitudes of the radical Belinskii were very close to those of the proponents of Official Nationality under Nicholas I, while later in the century Pobedonostsev and Chekhov agreed in the strongly positive view they took of Peter. Even Soviet historiography of the last half-century, although it has played down sharply his significance as an individual, has enthusiastically accepted much of the achievement of his reign – the growth of the armed forces, the successful foreign policy, even the strengthening of the administrative apparatus of the tsarist state.

For a clear description of these attitudes and the slowness with which many of them changed it would be hard to improve upon this thorough and careful study.

M. S. Anderson

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Famine, war and disease

The European Crisis of the 1590s: essays in comparative history
edited by Peter Clark
Allen & Unwin, £25.00
ISBN 0 04 940074 6

In the lexicon of the 20th century historian, "crisis" has become an increasingly attractive word. The "crisis of the 1590s" was perhaps first identified by John Elliott writing about Hapsburg Spain and it was used to good effect by the editor of this present volume in organizing his earlier discussion of the experience of late 16th-century Kent. This present volume has its origins in a conference held to discuss whether the concept of crisis could link the experiences of West Europe as a whole in the 1590s.

The volume falls into two halves. The first offers a series of detailed case studies of the differing experiences of England, France, Spain, Germany and the Dutch Republic in the 1590s; the second consists of essays devoted to a more general investigation of some of the themes in that decade: crisis mortality, war, rebellion and the responses of government. What emerges in abundance from the case studies is the certainty that the decade witnessed acute problems. War, famine, disease and economic dislocation in varying combinations directly or indirectly affected all the countries discussed, creating difficulties in even the otherwise prospering Dutch Republic.

There is similar agreement on the immediate consequences of these visitations: heavy mortality (though the respective roles of disease and famine in causing this perhaps need more discussion than they get here and certainly several contributions would have benefited from paying greater heed to David Souden's wise words on the uncertainty of a necessary link between some of the major diseases and malnutrition); a sharp increase in poverty; popular disorder (though as C. S. L. Davies points out in a later chapter this was more often threatened than realized); serious strains on the machinery of government. On the long-term consequences, if any, of the "crisis", there seems much less agreement. "Crisis", properly used, should denote a period of short, sharp upheaval which prompts long-term, structural change in societies. While some contributors remain too caught up in chronicling the problems of the decade in their chosen area to confront this issue explicitly, most implicitly refute that the 1590s were a crisis in this more precise sense and some, like Peter Burke in a characteristically crisp and lucid discussion of Southern Italy, deny a longer-term role to the problems of the decade.

None the less, if the decade prompted no long-term changes, a case can be made for its importance in understanding larger trends in the history of early modern Europe. Individual contributors do point to some significant developments that can be seen to have their origins in, or to be accelerated by, the experiences of that decade. John Elliot in a richly suggestive concluding comment suggests that the late 16th century may have represented a watershed for early modern governments. In the immediate context of the 1590s there is evidence to suggest that many governments had reached the limits of their administrative capacities, but their experiences of that decade may have also have prompted them to become more ambitious in their aims, as N. Davidson suggests was the case for Northern Italy. And in some countries, as Philip Benedict argues for Northern France where the late irruption of confessional strife compounded its "crisis", the experiences of that decade may have made subjects more willing to accept a growth in the authority of the state. Certainly, while the case studies offer plenty of evidence for Brian Pullan's statement that the state was a cause of catastrophe, those societies that escaped relatively lightly owed their good fortune in part to the abilities of their governments to mitigate the worst effects of the "crisis", as Brian Outhwaite demonstrates persuasively was the case for England.

If this volume fails to advance a convincing case for the inclusion of the 1590s in an already overlong roll call of historical "crises", it loses little in its value as a contribution to our understanding of early modern societies. Not the least of its strengths is that it is possible to read in the differing impact of common problems striking evidence of a developing pattern of differential development. For some societies, notably Wallerstein's "core states" of England and the Dutch Republic, this was, in Peter Clark's own phrase, "a crisis contained".

John Walter

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Medieval protection money

Lords and Men in Scotland: bonds of manrent 1442–1603
by Jenny Wormald
John Donald, £30.00
ISBN 0 85976 127 4

When Scottish lairds in the 15th and 16th centuries sought protection they often found it by making agreements with greater men and when greater nobles sought support they found it by making agreements with lesser men. The laird would bind himself in friendship and loyalty to serve the noble for life, the noble would agree to maintain his supplicant, usually in general terms, but occasionally with land or money. Both would now regard each other as kinsmen, significant in a society in which kinship (especially when combined with geographical proximity) was the most important force. These arrangements were formalized throughout Scotland in written contracts, especially in bonds of manrent and bonds of maintenance, some 800 of which, calendared here, survive, the earliest from 1442. This unique source has not been treated systematically before: and often the mere existence of bonds has been simply seen as further evidence that late medieval Scotland was primitive and its ruling classes composed of feuding kindred who had yet to receive the blessings of a strong and benevolent state.

It is the singular merit of Jenny Wormald's careful and subtly argued study that she has not only provided a thorough analysis of the surviving bonds but that in doing so she has also offered a fundamental and convincing reinterpretation of the role of the nobility in late medieval Scotland. The nobility were not as lawless as legend has it. Bonds of manrent did provide nobles – especially families anxious to establish or extend their influence, like the earls of Huntly and Argyll – with groups of followers. But nobles were also representatives of royal authority in the regions, sharing an interest with the crown in using the influence that bonds provided to impose and to greatly from such noble service in the localities, for example from the Gordons earls of Huntly in the north-east. When particular governments acted against individual noblemen, or appeared to act against bonds in general, close analysis shows that this was the result of a particular political context, and not of the application of consistent principles. Moreover bonds did not automatically provide nobles with a totally loyal following. Much depended on the personality of those at the head of a kin. Good lordship depended on the effective control of dependents, imposing arbitration, resolving or containing feuds and disputes: as the excellent vignette of the earls of Argyll shows. There are lessons here for students of all European nobilities.

Having rebutted the ever influential legends, Dr. Wormald is realistically ambivalent on the place of violence in Scottish upper class life. She can talk of a group of lairds as "a pack of snarling dogs", and point out that men did not wear swords for decoration. There are many incidental references to the murder of people of rank. In a sense the very making of bonds implies violence, as she suggests: if men sought protection, they must have been wary of makes it difficult for the historian to do more than assess in general why bonds were made. If some bonds were clearly made to repair a strained relationship or to effect a reconciliation, usually it is almost impossible to explain the precise timing of an individual bond, or to determine exactly who of the bonders took the initiative. More generally Dr Wormald insists that lords did not make bonds just for feuding but rather to win the honour that would be due to men with a lavish following, and that Scottish society was not exceptionally violent by European standards.

Here her work agrees well with much recent writing on late medieval England. Her conclusions that men made bonds not to cause violence but against a background of potential violence, and that violence could paradoxically be employed in the long run interests of peace, emerge clearly from her detailed evidence. Dr Wormald's ambivalence ultimately reflects the ambivalence of Scottish attitudes themselves; Her sensitive study is a notable contribution to our understanding.

George Bernard

George Bernard is lec[illegible]

BOOKS

Always ahead of its time

Haiti in Caribbean Context: ethnicity, economy and revolt
by David Nicholls
Macmillan, in association with St Antony's College, Oxford, £30.00
ISBN 0 333 290836

The great merit of David Nicholls's latest book on Haiti, published in a handsome edition by Macmillan in its St Antony's series, is that although it assembles pieces written over the past 15 years, they are almost all informed by the same purpose: to analyse Haitian history and politics from a comparative, Caribbean perspective, something that has been badly needed, not only in the English-speaking world, but more generally.

As such, for example, it is a much stronger and subtler book than Aaron Segal's and Brian Weinstein's recent *Haiti: political failures, cultural successes* (1984). In three four-chapter sections ("Ethnicity," "Economy" and "Domination and Revolt") Nicholls provides us with a rich and insightful portrait of Haitian cross-currents from independence in 1804 to the present.

The central question posed by the Haitian predicament is how "the most profitable European colony in the latter part of the 18th-century" has become the poorest country in the western hemisphere, with a per capita income of $200 and an illiteracy rate of 85 per cent. Although Nicholls does not really confront the question directly, he provides the reader with many elements for an answer.

Haiti's tragedy has been to have been historically ahead of its times on too many fronts. It became the second independent republic in the Americas in 1804; more importantly, it was the first black republic, at a time when slavery was still a key institution in many countries of the world; it also undertook the first "agrarian reform" program in the Americas; under President Pétion (1806–1818), "over 150,000 hectares were distributed or sold to more than 10,000 persons"; finally, strong feelings of economic nationalism led to a constitutional ban on foreigners owning land in the republic, a ban that stood until 1918.

The cumulative effect of all this was to make Haiti a pariah republic, shunned and feared both by the European powers and by other Caribbean territories and the United States, who dreaded the possible "contaminating" effects of the Haitian revolution on their own societies – a situation not too different from the one emerging in the 1960s with Cuba and in the 1980s with Nicaragua. A crucial difference, though, was that Haiti was totally on its own (no socialist bloc existed at the time, of course) and its efforts to play off the United States against France only ended up making matters worse, putting the country heavily in debt to France first, and leading (at least partly) to the US occupation of Haiti (1915–1934) later. In the economic sphere, it led to an inward-oriented development that left Haiti with scarce foreign exchange earnings, and to a steady subdivision of the land, which created the only significant land-holding peasantry in any of the larger Antilles.

Drawing on extensive primary research as well as on a solid command of the literature and on first-hand observations and fieldwork, Nicholls develops a number of themes that are crucial for an understanding of Haitian history. Although parts of the book read like narrative political history with a vengeance (with focus on presidents and generals, battles and diplomatic manoeuvres) he is really at his best dealing with the complex interaction of colour and class ("although colour loyalties and antipathies have never been the sole factors in determining political alignments, they have rarely been absent from political conflict"), language and religion (French and Kréyol, Catholicism and Voodoo) and the bases of power of the Duvalier dynasty.

The style is extremely personal, drawing from cocktail party conversations to Haitian reactions to Nicholls's macaw, juxtaposed with quotations from Aristotle to Hobbes; somewhat surprisingly perhaps, it works. Nicholls has an acute, almost anthropological eye for describing social phenomena and relationships he has had a chance to observe first-hand. His chapter on East Indians and Black Power in Trinidad, although somewhat marginal to the central purpose of the book, is a fascinating case study of the February 1970 revolution in Trinidad which Nicholls observed and what it tells us about race relations in the Caribbean. In contrast, the chapter on Haitian migration (on which I believe Nicholls has done no fieldwork) is much weaker, pulling together various parts of the literature, but telling us little that is new.

I have some difficulty in understanding Nicholls's fascination with the role of the various Arab communities in the Antilles (and the pertinent chapter in the book should certainly have been put under ethnicity rather than under economy) but, to his credit, he uses this esoteric subject to illustrate the very different reactions of four Caribbean countries (Jamaica, Haiti, Dominican Republic and Trinidad) to what he calls the "Levantine" immigration, and what that reaction tells us about the social structure of each.

Some sharper editing would have made this a more well-rounded book. Whatever insights we may derive from the aphorism *"nèg rich sé mulât, mulât pov sé nèg"* or from the fact that until 1913 all Haitian heads of state were military men, wear out by the fourth time we come across them. Nicholls might also have attempted to distil some interesting and provocative insights on "Haiti in a Caribbean context" as a way of conclusion, rather than with the tirade against the Brandt report with which he closes the book. And there is something wrong with a book which purports to be, at least partly, about the Haitian economy but includes no serious analysis of the most significant economic phenomenon to have taken place there over the past fifty years – the large-scale emergence of assembly plant manufacturing.

Despite these reservations, there is no doubt that this book is a valuable contribution to the literature on Haiti and Caribbean politics.

Jorge Heine

Jorge Heine is associate professor of political science at Inter American University in San Germán, Puerto Rico. His book The Caribbean and World Politics: cross currents and cleavages *(co-edited with Leslie Manigat) will be published next year.*

The quayside at Port-au-Prince, 1941.

Roots of revolution

An Introduction to Shi'i Islam: the history and doctrines of Twelver Shi'ism
by Moojan Momen
Yale University Press, £18.50
ISBN 0 300 034997

I can still remember how, in the mid-70s, it was social death to mention Shi'i Islam as one's field of research. Ayatollahs went down at dinner parties about as well as Aids does today. But by 1979 a man could dine out on them several nights a week. Since then public interest has waned very little. Car-bombers have joined the mollas as symbols of religious fanaticism for an age that had thought it had left all such things behind. From almost total obscurity less than a decade ago, Shi'ism has become the most visible (and, I should think, least popular) religious force in the world today.

It takes the academic world a bit longer to catch up with that of journalism. Experts on Shi'ism are thin on the ground, and much of what they write is inaccessible even to other Islamicists. Any number of books and articles have, of course, appeared over the past few years, describing and analysing the Iranian Revolution and its antecedents, but precious few go into real detail about its religious roots, while those that do are usually too specialized for the ordinary reader. The standard introductions to Shi'ism are either hopelessly dated and uninformed or woolly and hagiographic, while Yann Richard's more recent effort (*Le Shi'isme en Iran*) is very short and restricts itself to one country. Most general introductions to Islam treat Shi'ism as if it were a minor aberration that ceased to be of much importance after the Middle Ages.

Into this wasteland Moojan Momen's book descends like an economy-size box of manna. It is just about everything one might have wanted in an introduction to Shi'ism, and rather more. It is, to start with, quite a large book, with 299 pages of text supplemented by appendices and a wealth of well-chosen photographs. There are charts and diagrams, including some statistical tables that even experts will find extremely useful. Moment takes us all the way through the complexities of a multi-faceted religious system, from history and doctrine, through ritual practices, popular religion, social relations and jurisprudence, to the contemporary scene, with side excursions into mysticism, the clerical hierarchy, and sectarian developments.

In spite of the title, Momen has opted (sensibly, surely) to concentrate on what might be called "mainstream Shi'ism", that is to say the Ithna 'Ashari or Twelver line of what was originally a congeries of semi-political splinter groups in early Islam. Very little space is devoted to other Shi'is like the Zaydis or Ismailis who, however important in their day, proved less successful politically than the Twelvers following the establishment of the Safavi dynasty in Iran at the beginning of the 16th century. Momen's description of the emergence of Twelver Shi'ism out of the confusion of early Islam takes, perhaps, too much for granted and owes a lot to the later rationalization of events; but once he does get the rival sects out of the way and buckles down to the Twelvers, their leaders, their books, and their theories, he provides an unsurpassed account that makes rewarding reading for the specialist. Momen will be the basic source-book for Shi'ism for the next generation.

Such is the wealth of detail in this book that the title misleads in yet another sense. This is less of an introduction than a survey, with digressions into topics like the Shi'i Sufi orders or the leading clerics of the modern period that will undoubtedly tax the non-Islamicist severely. This is not an introduction for the casual reader who lacks a basic knowledge of Islamic religion and history. It is a solid, erudite, and remarkably broad work that cannot fail to render Shi'ism more accessible and better understood among both academics and those with an intelligent interest in the Islamic world.

I find it ironic that such a comprehensive and sympathetic account of Shi'ism should have come from the pen, not of a Shi'i, but of a Baha'i. Were Shi'i scholars to expend in the study of Baha'ism one tenth of the effort and empathy Momen has devoted to his presentation of Shi'ism, perhaps the crudities of anti-Bahi'i polemic and the continuing disgrace of clergy-inspired persecutions and pogroms would be at least alleviated.

Denis MacEoin

Dr MacEoin is lecturer in Islamic studies at the University of Newcastle Upon Tyne.

Branded as typical liberals

The Politics of the American Civil Liberties Union
by William A. Donohue
Transaction Books, £29.95 and £14.85
ISBN 0 887380212 and 87855 983 3

The American Civil Liberties Union is not a nonpartisan body but is a highly political group, a kind of left-wing equivalent to Jerry Falwell's Moral Majority. This is the argument advanced in Mr Donohue's book, and to substantiate it he examines not only the ACLU's current activities but also its history, showing how from its origins after the First World War its constant concern has been to reform society.

The book is offered as a study of 20th-century American liberalism as much as of the ACLU. In each of its main phases, from its support of organized labour in the 1920s, through its initial suspicion of and eventual conversion to the New Deal, its moderation in the Cold War years, to its laid-back permissiveness on moral issues in the 1980s, the ACLU has reflected the course of liberalism, or at least certain kinds of liberalism. At times Mr Donohue's study is reminiscent of the analyses that were once made of popular front or Communist front groups, to demonstrate that they slavishly followed every shift in the Communist "party line". This technique can be revealing, but it is not entirely satisfactory for Mr Donohue's purpose, since, unlike the Communist Party, American liberalism does not lend itself to precise identification.

Mr Donohue does begin conscientiously enough with a definition of liberalism, but this does not always help him to steer a safe course. Thus he early invokes Americans for Democratic Action as a typical liberal organization, and while he shows that the ACLU and the ADA assumed similar stances in the 1950s and 1960s, consistency would require him to show the same for the 1970s and 1980s, but at this point the ADA tends to disappear from the discussion. Typical liberals, apparently, are those so designated by Mr Donohue, and they are summoned or dismissed at his convenience.

Mr Donohue's basic argument, of course, has a great deal of credibility. Prominent American liberals and radicals have always been associated with the ACLU, and its causes have generally been supported more enthusiastically by left-wing than right-wing groups. The author, perhaps, has performed a useful service in documenting this orientation of the ACLU so exhaustively, but his revelations hardly come as a surprise. Anyone familiar with the ACLU's history knows about its long identification with Roger Baldwin and his early involvement with anti-war and pro-labour activities, its uneasy handling of the problem of Communism, and its recent libertarian stance on such issues as prostitution, pornography and narcotics. It is true, of course, that the ACLU has always claimed to be nonpartisan, but it is doubtful whether anyone other than Mr Donohue has ever understood this to mean anything more than that it is not formally allied with any political party and that members of all parties may be found among its clients.

The book's scandalized tone soon becomes tiresome, and its rather simple thesis does not require the space it is given, yet its attempt at comprehensiveness at least means that some of its contents are not without interest. It is certainly diverting to find the ACLU threatening a libel suit against the *American Mercury* in the 1930s, and it is instructive to note the tardiness with which it took up the cause of civil rights for blacks. More familiar is the episode of the non-Communist resolution, adopted for board members in 1940, and the subsequent departures of Elizabeth Gurley Flynn and Corliss Lamont. In fact, Mr Donohue does not seem to appreciate just how familiar this part of the ACLU's history is, for he makes no mention of Mary McAuliffe's excellent study of the subject, an omission which is all the more serious because Miss McAuliffe was also using the ACLU to examine the course of American liberalism.

It is not entirely clear whether Mr Donohue is berating the ACLU for failing to be nonpartisan or for pretending that it is possible for a public body to be non-partisan. If objectivity is an attainable goal, however, it is one which has eluded Mr Donohue. Anti-liberal asides intrude on almost every page, as when the ACLU is condemned for opposing President Reagan's efforts "to do what the voters across the country asked him to do: cut back on big government". No one can know for sure what the voters in 1980 "asked" Mr Reagan; it is quite possible that they were not asking him anything but were protesting at the political incompetence of President Carter and the humiliation of the United States in Iran. But Mr Donohue is not one to pass up the chance to make a partisan point, which he does as often as he pays almost obsequious homage to his own heroes like Irving Kristol and Sidney Hook. The neoconservatives, it seems, have decided that the ACLU is a body that they "can do without".

This book blasts away with all the finesse of a blunderbuss from the neoconservative arsenal.

M. J. Heale

Dr Heale is senior lecturer in history at the University of Lancaster.

Central America and United States Policies 1820s–1980s: a guide to issues and references by Thomas M. Leonard is published by Clio Press at £18.65 and £11.35.

It sets out to place the problems of Central America and their implications for U.S. foreign policy in historical perspective, going on to look at the U.S.'s two fundamental objectives in the region, which were to "keep the Europeans out", and to maintain order and stability. The book shows that in each country the U.S. accepted the ruling elite, upholding existing regimes.

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BOOKS

Period of poetic expansion

The Daring Muse: Augustan poetry reconsidered
by Margaret Anne Doody
Cambridge University Press, £27.50 and £8.95
ISBN 0 521 25825 1 and 27723 X

Critics *worry* about Augustan poetry, and feel a need to justify it. This is a process that began early: when Johnson asked rhetorically: "If Pope be not a poet where is poetry to be found?", he was responding to the provocative questions that had been raised by Warton in his *Essay on Pope* but also unconsciously anticipating a hostility that would become dismissive in the grumbling tones of 19th-century critics ("No new images of external nature . . . age of prose and reason") and that still affects us despite fifty years of patient and often brilliant critical rehabilitation. What the Romantics and Victorians rejected remains suspect long after their own achievement has been placed historically.

Margaret Anne Doody suggests that our understanding of both Augustan novels and poetry would be improved *by studying them together. She herself* turns to Augustan poetry after writing *A Natural Passion*, perhaps the best *general study of Richardson's novels* yet to appear, and Richardson's extraordinarily spontaneous, uninhibited creativity provides *in a sense* a model for her of what needs to be grasped about Augustan poetry. *Aspiration and appetite* are seen as central ideas in 18th-century attempts to define poetic activity. Johnson's famous encomium of Pope's genius – "a mind active ambitious and adventurous . . . always endeavouring more than it can do" might, together with his reference in *Rasselas* to "that hunger of imagination which preys incessantly upon life", provide a suitable epigraph to poetry from the Restoration to the Romantics.

It is a period which more than any other expanded the range of poetic subject matter to include human activities of great diversity – science, industry, agriculture, social life in all its forms. And to accommodate this activity it developed in new ways a range of forms which included the verse epistle, the georgic, of which Thomson's *Seasons* is the most adventurous example, and a variety of mock genres, some of which effectively supplanted their models and developed an independent life. Gay's *Shepherd's Week* and Pope's *Rape of the Lock* are evidently greater poems than any straightforward pastoral or epic of the 18th century. Dr Doody writes with verve and sympathy of this double expansion of subject matter and form and she makes an effective case for seeing the period as a time of release rather than restraint.

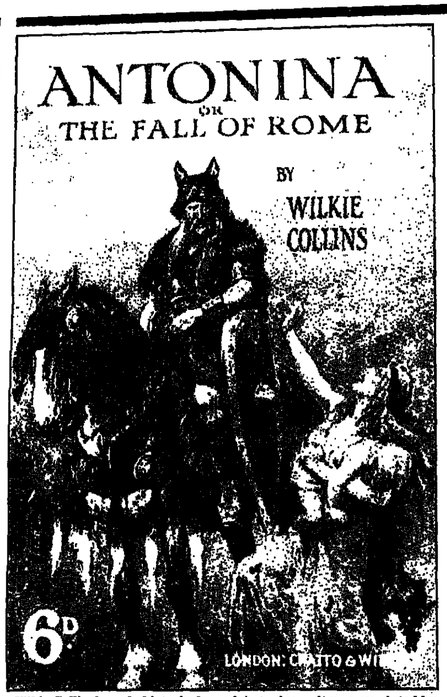
Yet sometimes the emphasis on the freestanding eventivity of Augustan poetry seems to deny the essential tension between tradition and innovation. Dr Doody comments, for example, that "the Augustans had to work at creating new kinds of poetry that would not depend for support on *formal expectations and restrictions*". This follows a discussion of the period's distrust of "closed" forms, for example *the sonnet with its very tight* formal expectations. Clearly the more rigid lyric forms were unpopular (though it *is well shown how effectively* Rochester played variations on the formal structures of the love lyric) but it surely begs the *question to suggest that* poems like *Macflecknoe*, *Trivia* or *The Dunciad* do not depend on "formal expectations and restrictions". The models that underlie these poems provide an essential context without which they are largely meaningless. Augustan poetry is unlike the fiction of Richardson or Defoe precisely in that it depends on a *highly conscious* interplay between past and present, between inherited expectations and actual achievement.

Dr Doody seems inclined to underplay the extent to which Augustan poetry remains dependent on traditions of form even when deviating most widely from them and the reader meets a similar problem in the interesting chapter on "Charivari and Metamorphosis". "Charivari" is a term applied here to a common aspect of Augustan poetry, the "mixture of the celebrated and the violent enacted by a crowd": *Macflecknoe*, *Hudibras*, *The Dunciad* and Pope's first *Epilogue* provide obvious examples. Dr Doody argues convincingly that here there is often an excessive vitality which threatens to take over "reality" and assume a life of its own. The threat is certainly felt, especially in *The Dunciad where mere matter often spawns* apparently uncontrollably ("Magots half-formed in rhyme exactly meet,/ And learn to crawl upon poetic feet"). But it is doubtful whether effects of this kind can legitimately be related, as *they are here, to surrealism*. Genuine surrealism springs from the spontaneous pressure of irrational psychic *forces and from a willingness to give* those forces free play; but Pope and Swift, though intensely aware of the pressure of the irrational (the danger of man's fancy getting astride of his reason) surely never yield willingly to that pressure. The presence of fantasy and the monstrous in their work marks a point of departure from order and decorum but it is also obliquely a tribute to the need for those restraints. Indeed, it is in the tensions generated by the necessity for imposing order on disruptive passions that the most vital imaginative impulse is found. Only perhaps in Smart and Blake, neither very fully discussed here, does this cease to be true.

The emphasis on Augustan venturesomeness is sometimes carried dangerously far but for all that *The Daring Muse* is an important contribution to debate about the period. It is vigorously and readably argued, contains a wide range of analysis (the discussions of *Bacis and Philemon* or Gay's "Youth's a season . . .' for example, are the best that I have seen), and it uses a wide range of illustrations to good effect. It builds on the work of Martin Price, Paul Fussell and Donald Greene and carries the argument forward strongly.

John Chalker

John Chalker is professor of English at Westfield College, London.



Wilkie Collins's early historical novel *Antonina* as it was reprinted by *Chatto & Windus in* 1893. *Despite the alluring illustration the edition* was not a success, selling only 1,240 copies. The cover is one of many reproduced in *Sixpenny Wonderfuls* (Chatto & Windus, £5.95) which records the publisher's venture into cheap mass-market paperbacks at the turn of the century. "A brave experiment", notes the introduction, "which was reborn only a few years later in the first Penguin paperbacks."

Quick changes

The Metamorphoses of Shakespearean Comedy
by William C. Carroll
Princeton University Press, £23.40
ISBN 0 691 06633 7

In 1598 one Francis Meres published a "Comparative Discourse of our English Poets with the Greek, Latin, and Italian Poets". Some of his claims are excessive: *the now totally forgotten* William Warner is called "our English Homer". But one of them is astute: "As the soul of Euphorbus was thought to live in Pythagoras, so the sweet witty soul of Ovid lives in *mellifluous* and honey-tongued Shakespeare". Ovid was Shakespeare's favourite poet, the *Metamorphoses*, that rich repository of classical mythology, Shakespeare's favourite book.

Meres's simile refers to the supposedly Pythagorean belief in "metempsychosis", the transmigration of souls (a doctrine wittily appropriated by Feste in *Twelfth Night*, a play full of transformations). Pythagoras' legendary opinions had been given their most famous exposition in the final book of Ovid's *Metamorphoses*. Arthur Golding, in whose translation Shakespeare read the *Metamorphoses*, said that "The oration of Pythagoras implies / A sum of all the former work": with its image of the golden age, its *sense of all matters falling out* in their own due season, and of the only constancy being in change, the oration of Pythagoras is also a sum – if such a thing were possible – of all Shakespeare's works.

William Carroll's *The Metamorphoses of Shakespearean Comedy* is heralded by its publishers as "the first full treatment of Ovid's relation to Shakespeare". Though a treatment, it is not a full one, for it restricts itself to analysis of the many metamorphoses in a few plays – *The Taming of the Shrew*, *The Comedy of Errors*, *Twelfth Night*, *A Midsummer Night's Dream*, *The Merry Wives of Windsor*, *The Winter's Tale*, *and The Tempest*. *The Two Gentlemen of Verona*, *The Merchant of Venice*, and *As You Like It* are discussed in terms of one particular metamorphosis, that of boy actor into female character into male disguise.

Before proceeding more or less chronologically through these plays, Carroll offers an introductory chapter on metamorphosis. There is some excellent historical material: both here and in an appendix covering *Commedia dell' Arte* pastoral comedies, Carroll is particularly good on the Italian connection in the Renaissance. But problems arise when together with Ovid and Renaissance motifs, such as Spenser's "Mutability", we encounter 20th-century terminology: Carroll understands metamorphosis as "transgression", the crossing of "boundaries". These terms are borrowed from R. D. Laing – metempsychosis has been replaced by psychoanalysis.

Thus in a discussion of how Julia in The Two Gentlemen of Verona tells how she acted the part of Ariadne deserted by Theseus, Carroll speaks of "the prototypical act of distancing the self, of crossing a boundary to step outside oneself". It would surely have been truer to Shakespeare and his audience if instead of this modish psychological vocabulary there had been an extended discussion of the similarities and differences between the two heroines, supported by reference to Ovid's "Letter of Adriane to Theseus" in the *Heroides*. Carroll relies too often on such gambits as "The psychoanalyst Heinz Lichtenstein has argued . . . " and "It is a clinical fact that . . . ".

But once this anachronistic framework is swept away, *we are left* with a sensitive and just reading of the comedies which convincingly shows *that metamorphosis is the central process* in all of them (or *almost* all of them – *Much Ado about Nothing* is conspicuous by its absence). Carroll writes illuminatingly about two key elements of Shakespearean comedy: the relationship between acting and transformation, and the metamorphic nature of verbal structures and slippery meanings. The last plays are especially amenable to his approach: where metamorphosis is often a metaphor in the earlier comedies, in *The Winter's Tale* it seems to be a reality, as the statue of Hermione comes to life.

But Carroll makes his argument easy to prove by treating metamorphosis *in a very* broad sense that takes in disguise, role-playing, shadows, doubling, word-play, and changes of *heart – if all these are metamorphoses*, then metamorphosis is the central process in every Elizabethan play (and *most other works of literature?*). Inevitably the drawing together of so many different kinds of transformation leads to some odd *juxtapositions*; it tells us little to mention in the same breath Oliver's change of heart in *As You Like it* and Bottom's *metamorphosis* into an ass. William Carroll's book is a useful addition to the burgeoning literature on the comedies; had it focused more sustainedly on Shakespeare and Ovid, it would have been an indispensable one.

Jonathan Bate

Dr Bate is a research fellow at St Catharine's College, Cambridge.

Refuge in the grave

The Complete Poetical Works of Thomas Hardy
volume three: Human Shows; Winter Words; Uncollected Poems
edited by Samuel Hynes
Clarendon Press: Oxford University Press, £32.50
ISBN 0 19 812784 7

The *first two volumes* in Samuel Hynes's edition of Hardy's poetry were greeted with acclamation. Volume *three deserves no lesser* praise. Completing the lyric poetry part of the edition, it presents Hardy's last two books of verse (*Human Shows*, 1925, and *Winter Words*, 1928) together with all his uncollected poems. As with the first two volumes, the textual commentary lucidly details sions along with variants from printed texts. Brief (though not abbreviated) histories of the composition and publication of the poems again accompany useful explanatory notes.

Professor Hynes approaches the special textual problems raised by *Winter Words* with admirable common sense. Hardy died before finishing revision of his manuscript for publication and there are cases where, having written a poem out in ink, he entered (usually in pencil) alternative words or phrases without cancelling the original reading. As Hynes observes, when Hardy's second wife Florence came to prepare *Winter Words* for the printer she apparently adopted "no consistent principle" for dealing with such cases, "choosing the inked versions half the time, and the pencilled versions the *other half*". No *decision in these* matters is unproblematical, but Hynes opts at least for consistency. Where an *original reading is uncancelled he* retains it, taking the pencilled variant to be tentative and relegating it to a record in the textual notes. There is no been generally read since 1928, though "To A Tree In London" properly loses an entire stanza that had been constructed by Mrs Hardy out of the poet's clearly unresolved pencil draft in the margin of his original manuscript text.

One poem is published here for the first time. "The Sound Of Her", conventionally associated with Hardy's first wife Emma who had died in 1912, has its speaker confusing the noise made by the screwing down of the coffin lid of the dead woman with the sounds that in life she used to make with her embroidery machine. In his biography of Hardy, Michael Millgate suggests that Florence Hardy dissuaded her husband from including "The Sound Of Her" in *Moments Of Vision* (1917) because it seemed to her yet another example of Hardy's obsession with his dead wife and of what she spoke of as his "sole wish . . . to find refuge in the grave with her".

Yet whatever the literal level of reference in "The Sound Of Her", the poem is at once an illustration of the way in which Hardy could project onto the lost Emma that preoccupation with repeatedly imaged in terms of a lost loved-one – which recurs throughout his verse. However significant the particularities, in Hardy's poetry the figure of the absent Emma Hardy is energized with an archetypal force. It is the archetype which is at work when the speaker of "The Singing Lovers" (published in *Human Shows* but dated 1869 in Hardy's holograph) complains: "But my Love was not there, / Vanished, I sorrowed where". In "The Fading Rose", also from *Human Shows*, it is a petal-shedding rose that is conceived to lament: "O where is she / Who used to come and muse on me?" "He with the spade and humorous leer" tells the rose that *reconciliation* is a possibility only in death: "She must get to you underground / If any way at all be found".

The impossibility of a healing of division in life is tirelessly explored in the works included in this volume as elsewhere in Hardy's poetry. "The Monument-Maker", (*Human Shows*), for example, draws on an aesthetic metaphor to suggest both that the lost loved-one exists only in the speaker's ly those formulations which *maintain* the separation between them: "I chiselled her monument / To my mind's content . . . / Then laughed she over my shoulder . . . / 'It spells not me!' she said". The imaging or making of this "other" by the self is in some sense also part of a process of self-definition. And if, on the one hand, "she" seems disposed to elude the speaker's spelling of her then, on the other, it may also be the case that it is only within the medium of such spelling that any definition of identity may be *aimed at*. "I shall be more myself, Dear, then, / Than I am now" declares the speaker in "When Dead" (*Human Shows*). But there is the abiding under-current anxiety in Hardy's verse that nothing can be posited beyond language. In "The Fading Rose" the gravedigger delves "'Mid text-writ stones and grassy heaps, / Round which a curious silence creeps".

Aidan Day

Dr Day is lecturer in English literature

BOOKS

The role of cultural tradition

Education, Persons and Society: a philosophical enquiry
by Glenn Langford
Macmillan, £25.00 and £7.95
ISBN 0 333 34326 3 and 24327 1

The writings of philosophers of education may be concerned either with the practice of education or with the appropriate use of philosophy to illuminate that practice. Glenn Langford's developed essay is an interesting contribution to this second debate, which of course carries implications for substantive issues both in philosophy and in education.

Recent methodological critiques of much philosophy of education have tended to focus on the procedures of conceptual analysis and their theoretical dependence on the logical positivism of the 1930s. Langford's analysis looks further back at our philosophical inheritance and is therefore more far reaching. His basic quarrel with the philosophy of education of the past thirty years is not so much with the techniques it has employed as with its reliance on a Lockean world view which gives rise to an inadequate conception of education itself.

The Lockean point of view, which this writer sees as pervading our understanding of education, is atomistic and empiricist, *sustaining a rational* individualism which underplays the relations between education, persons and society. Langford first explores some of the presuppositions of rational individualism, arguing that its conceptions of the relation of ideas to the world, of perceptions to actions, and of the *individual* to the social group, are philosophically unsatisfactory. He shows that it gives rise to an account of practical principles (such as those which might govern the practice of education) which secures objectivity only at the price of an untenable apriorism. This in turn generates a notion of educational theorizing which, though apparently individualist, is fundamentally undemocratic, since a priori objective principles encourage an elite corps of individuals who, in discerning them, will know best how to direct or reform the lives of others.

Langford draws his inspiration for an alternative point of view from the writings of the art critic and historian Sir Ernest Gombrich. Gombrich was *concerned to refute the popular notion* that the content of great works of art can be accounted for by the isolated *contributions of individual genius*, and to emphasize the part played by tradition in every great artist's perceptions as well as in his technique. Langford wishes to revalue this notion of socially mediated perception as a corrective to the Lockean account, thus steering a middle course between an unjustified asocial understanding of thought and an unacceptable cultural relativism which is often seen as its only alternative:

> Although what we see is determined by a way of seeing provided by a social tradition, what we actually see in making use of that way of seeing is determined by reality. The mind is active in making use of principles for organizing experience but it is passive in being *dependent on reality* for its experience.

Langford is not unaware of the *problems* which *arise from denying* that practical social principles can function as external guides to practice or *provide a basis for social change*. For, as he asks,

> . . . if tradition provides our only guide how can tradition itself be criticized? How is a critical tradition – that is, a tradition of self-criticism – possible?

In answering this he distinguishes between conservative and critical traditions, and between the activities of criticizing one's own tradition and that of others, introducing a notion of personal vision which is an amalgam of past social practice and individual interpretation. He suggests that the amended view of knowledge and understanding generated does not amount to the relativist sacrifice of rationality since, although it rules out the objective establishment of desirable means, it makes possible rational discussion of conflicting ends.

This argument represents the nub of Langford's essay, although the greater part of his book is devoted to a detailed *exploration of its implications for the* concepts of teaching, of teaching as a profession, of the accountability of *teachers and educational institutions*, of teachers as persons and occupants of social roles, of learning by experience and on the authority of others.

A reader looking for specific recommendations for practice will of course be disappointed, since Langford is concerned to emphasize that education is a social practice whose prime function is the creation of persons; and what counts as a person will vary from one tradition to another. Other writers in this area already accept that the liberal tradition in education, and many philosophers of education, have paid insufficient attention to the cultural context of knowledge and the social context of the learner, insulating educational experience from social realities, to the determent of both. In this book we are offered an elegant framework for that insight: it is time to relate it to practice.

Ruth Jonathan

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Getting down to business

College and Universities Organization: insights from the behavioural sciences
edited by James L. Bess
New York University Press, $39.00 and $16.00
ISBN 0 8147 1049 2 and 1056 5

What happens when professors of management focus their attention on higher education institutions rather than business enterprises? The result is a set of informative and frequently insightful papers, which are also incredibly dull for anyone but a specialist in the field of management studies. Nevertheless, the idea of asking management experts to study the organization of academic institutions is a good one and this volume will be of interest both from a theoretical perspective and, indirectly, for its insights into more effective management practice for higher education. The research it reports was carried out in the United States, but most of it has a wider relevance.

The editor, James L. Bess, makes the interesting point that although the literature on the "governance" of post-secondary education is quite large, few scholars consider higher education from the perspective of the study of organizations. Only one journal, the *International Journal of Institutional Management in Higher Education*, published by OECD in Paris, deals consistently with the topic. Experts on management no doubt find universities difficult to analyse since there is no clear line of authority and the structures of governance and administration are cumbersome. None the less, academic institutions are complex organizations with bureaucratic structures. Further, their large budgets coupled with increasing demands for accountability (both fiscal and performance), makes it pertinent to examine their organization and management.

The volume starts out with two chapters discussing the nature of academic organizations, pointing out that universities have their own life cycles and that one must consider the internal culture and norms of the institutions in order to deal with its organization. Three papers deal with issues of academic personnel, a particularly important topic in view of "*steady state*" *hiring and declining* morale in response to diminishing resources. Since, for the most part, *academic staff have permanent* appointments and it is difficult to transfer or fire them motivation becomes vital. But as Barry Staw, a professor of management at the University of California at Berkeley, points out, there is no generally effective means of motivating academic staff. A variety of means might be used but in view of the tenure system and lack of fiscal rewards, self-motivation is necessary. In a study of job satisfaction among American academics, Edwin Locke, William Fitzpatrick and Frank White argue for a more flexible definition of the academic work role, new and more varied contracts for hiring academic staff and in general a wider latitude for personnel.

The final set of four chapters looks at *organizational processes* and leadership. John Van Mannen discusses the initiation of academic leaders. *Most academic managers* are not chosen for their administrative or management skills and come from the ranks of the professoriates. Thus, providing training for these "amateur" administrators is a key factor, and one which is frequently ignored. It is interesting that Van Maanen argues for the study of the academic culture, friendship patterns and other elements in order to obtain an understanding of how *effective* initiation of *managers* takes place in an academic environment. Several authors emphasize the *innate conservatism and stability of* university organization, which while inhibiting quick response to crisis, *make patterns of academic development* predictable.

Despite its dry and somewhat jargon-laden style, *this volume does* further our understanding of modern universities. A useful sequel might be a volume applying management studies to their more detailed practical problems.

Philip G. Altbach

Philip G. Altbach is Professor and Director of the Comparative Education Center, State University of New York at Buffalo.

Diane Ravitch's book *The Troubled Crusade*: American education 1948–1980 (first published in 1983) is now available as a paperback (Basic Books, £9.95).

Women's places

Independent Women: work and community for single women 1850–1920
by Martha Vicinus
Virago, £15.00 and £6.95
ISBN 0 86068 610 8 and 570 5

Women undergraduates at Lady Margaret Hall, Oxford, 1888.

Independent Women is sectarian history. It is restricted in scope, it is *anti-pris* and its author claims that it could not have been written but for the women's movement of the past fifteen years. It is also sensitive, it is more comprehensive than its limits suggest and it sweeps its readers into a passionate engagement.

It is doubly sectarian because this feminist history is concerned with a *socially, numerically and chronologically* restricted segment of womankind: two generations of those chiefly *English and Scottish Protestant* middle-class single women who chose to pursue a career in the context of *community*. Widows, wives and working-class women are thus excluded. So, implicitly, are Welsh, Irish and Roman Catholic women, though I doubt that is Vicinus's intention. It is nevertheless sensitively comprehensive because the story ranges from religious and medical communities through colleges, boarding-schools and slum settlements to the militant suffragettes and because Vicinus has the happy knack of meeting a reader's scepticism while it is still half-formed and because she is too good a historian to be frightened by variety or contradiction.

Vicinus begins where she is least at ease, with the churches: communities where women found their space by exploiting conventional religiosity, bringing the world spiritually into their separated holiness if they were High Church, taking their holiness into the world if they were Low. The carnal world thus spiritually embraced, Vicinus turns to nursing, proof that women could work (at a cost) within the male world without loss of corporate status. As for educationists, they had their cake and ate most of it. Their boarding schools nurtured, within the respectability so essential for financial success, the germs of social change. Their *colleges* provided a "*glorious interlude*" of friendship, intellectual freedom, contact with fine minds and *horrible food in unforgettable* combination. Here Vicinus is at her best, her women springing to life as they dress for *dinner* "rave" for each other in tempestuous chastity.

So to settlements and the suffrage, the former beginning with the Women's University Settlement (1887), as different from Toynbee Hall as Roedean was from Rugby, demonstrating female philanthropy at its most personal and effective, training women for public life (such that the 50 women guardians of 1885 had become 1,200 by 1905) as well as for professional social service, proving that social reform worked, but that the female version was little more adequate than the male. Hence the politics. For Vicinus this means the militants, hurling woman's old claim to spiritual leadership into the heart of the body politic in a battle with society for a new female spirituality and a new separateness. Here women long enchained discovered their ultimate community: prison, with its forced feeding and its "rhetoric of bodily sacrifice". Gaol was their goal.

Thus it ends. Or rather the Great War ended it and women's communities froze into obsolescence, women's professions froze into subordination, *women's aims were first deflected and* then submerged in the socialistic currents of a still male society. And *perhaps here history turns into a tract.*

For as a study of (middle-class) women-controlled spaces, experiments in *women's culture*, *Independent Women* is invaluable; which is why I want more than the writer has promised. *But the book has an inbuilt* artificiality. It is anchored in the middle classes, its heroines exploiting *middle-class values to carve out their* space, yet class consciousness was not a mark of Victorian rigidity so much as of Victorian impermanence. (I was as new as the middle classes and as fluid. More yet, a sense of place is vital for people who are unsure of their place and this was a perplexity for men as well as for women. Women's religious *communities* appeared at a *time of* professional redefinition for clergymen too. Nurses battled just as the enlarged medical profession reformed itself. Women's colleges accompanied a revolution of the dons. Roedean was not very much newer than the renewed Rugby, and Votes for Women marched with the cumulative transformation of the male franchise. Vicinus alerts us to this but the full context necessarily eludes her.

Nevertheless, her women remained the daughters, sisters, cousins, friends, aunts, even the mistresses, of men who were just as at risk. However separated they were from the male world, they did engage with it. So perhaps her true heroines should figure in her next book; those educated women who left their glorious Newnham interlude for marriage, transforming that relationship sufficiently for the rules of the *family community* game to be in permanent flux. That battle too has yet to be won.

Clyde Binfield

Dr Binfield is reader in history at the University of Sheffield.

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BOOKS

Double edged

About Science
by Barry Barnes
Blackwell, £16.50 and £5.95
ISBN 0 631 14157 X and 14158 8

Most people know little science – and even less *about* science. Scientists *themselves learn a lot about some very* little corner of it, but they are often too close to it to see it in the large. During the past 20 years or so, science has come under the gaze of the methodological microscope (or are they telescopes?) of the sociologists, but their observations have not yet diffused to *the man in the street or even to the* woman in the laboratory. Barry Barnes sets out, with beautiful simplicity and clarity, some of the things that academic metascience now has to say about science as a social institution.

There is nothing particularly original about the topics with which he deals: *the growth of science and its incorporation* into the social fabric, the internal social structure of the scientific community, the societal influence of scientific expertise, the consequences of technological change, and so on. The outstanding virtue of this book is the imaginative directness and *down-to-earth realism with which* these topics are discussed.

Take his chapter on "authority". This starts with a vivid account of Stanley Milgram's experimental study of the way that ordinary people can be induced to inflict (apparent) pain on others, at the bidding of a supposed *scientific researcher. Barnes is much* too good a scholar to suggest that this work is the last word on such a complicated matter, but he uses it forcefully to make the point that people are often "extraordinarily obedient to persons they believe to be scientists, and obedient largely because those persons are believed to be scientists". But then, instead of denouncing this deplorable tendency, he shows how necessary it is, in a very complex society, to have "social relationships based upon trust and authority which allow specialized knowledge to flow through society to the points where it is used, and allow knowledge and competence from many origins to be combined at such points". In other words, the "double-edged" authority of science creates cruel but genuine dilemmas, which are not to be resolved by wishful thinking.

The central theme of this book is the *extreme division of intellectual labour* by specialization. This is a topic that is much studied as a phenomenon within the scientific community by sociologists of science, but seldom looked at in relation to society as a whole. What is so objectionable about it, by comparison with other highly specialized occupations, such as playing the violin or running marathons? Does it really fragment society, or does it simply create "intense relationships of inter*dependence" between highly special*ized groups that "serve as a kind of social cement"? Barnes does not offer slick answers to these apparently elementary questions, but puts much of our highbrow sociology to the test by asking them.

Such a searching, sceptical attitude *does not produce a completely* coherent image. For example, his deliberately oversimplified account of academic science as a community in which "contributions to knowledge" are exchanged for "recognition" does not link up at all with the way that research is now mostly done. He *rightly observes that the emphasis in* what we call "scientific knowledge" is now on fields that "concern themselves not with general aspects of the world but with specific ordered structures [that is, technological artefacts] in it". But he does not say very much about how the work of science is actually *undertaken in large, bureaucratic* organizations, and how the knowledge thus obtained is validated. His "thoughts on the future" do not suggest the possibility that the cognitive basis of our science may be undergoing change as a result of a transformation of its internal social structure.

This is a book to be recommended to anybody, from the age of 16 onwards, for its lucidity and incisiveness on a number of matters that everybody should know and understand.

John Ziman

John Ziman is visiting professor in the departments of humanities and social and economic studies at Imperial College, London.

Optical networks

Optical Fibre Communications: principles and practice
by John M. Senior
Prentice-Hall, £24.95 and £12.95
ISBN 0 13 638248 7 and 638222 3

We are living in an electronics age. *Developments during the past 25* years, based on the silicon transistor, have led to the widespread domestic use of electronic apparatus the complexity of which could only be realized *at enormous expense 30 years ago. The* microcomputer is a prime example, along with home video recording and quartz-crystal controlled digital watches. Broadcast colour television has drastically altered the leisure habits of millions.

The advent of optical communica*tions now opens the way for yet greater* changes. Though technically possible using electrical cables, it is clear that *the development of high-capacity* local-area networks of two-way video and data transmission is waiting for the provision of cheap optical fibre links and associated optical signal routing *and switching equipment. It may well* be that optical local-area networks will revolutionize human social behaviour in the civilized world, changing habits of work, shopping, education and leisure.

The use of light in electronics, though not exactly in its infancy, has *not yet emerged from adolescence.* Light is a very high-frequency manifestation of radio or electromagnetic waves; and with communication frequencies getting even higher, it was only a matter of time until visible or near-visible waves could be generated by a coherent oscillator and hence used in *transmission systems* analogous to longer-wavelength lower-frequency electronic cable and waveguides. The first (and second) generation of commercially viable optical cable systems *are now* in everyday use by public telecommunication undertakings throughout the world, and John Senior's book *presents a well-balanced* tutorial view of current practice.

Optical communications systems are at present fairly basic in layout. In general, a source of light (which may *or may not be a laser) is directly* amplitude-modulated, and that signal is fed down a cladded transparent fibre to a photodetector which converts photons to photoelectrons. There the optical story ends; complex modulation, multiplexing, signal processing and amplification are at present all left *to electronic circuitry.* Thus, in an optical system, there are three components: source, fibre and detector.

The success of optical communications has depended above all on the development of the optical fibre, and it is with the fibre that Senior occupies almost the first half of his book. Fibres *are first described in theoretical terms* as optical waveguides, and the distinction drawn between step-index and graded-index, multimode and single-mode. Next, the pertinent characteristics of fibres are examined individually, with the various causes of signal attenuation being followed by the dispersion processes which limit the bandwidth available.

It is the great advances in the reduction of optical loss which have made fibre communications viable and *indeed so successful. As with the* development of the semiconductor transistor, material purity is the key. The glass in the best fibres is so pure that the dominant loss mechanism is scattering on a molecular scale, due to the rather random composition and hence density of glass. Such fibres will reduce the power in an optical wave by one half only after about 15 kilometres. A reduction in power by a *factor of 100 or even 1,000 is easily* tolerable in a high-capacity system, corresponding to 100 and 150 kilometres of fibre, respectively.

Over long distances the fibre itself *limits the rate at which signals can be* transmitted and hence the information capacity of the system. Because light of slightly different frequencies will travel in a fibre at different speeds, and since a short pulse of light *must contain* a spread of frequencies, that pulse will be spread in time ("dispersed") on *reception after traversing a fibre. By* clever fibre design, dispersion may be minimized (setting one cause of dispersion off against another).

Manufacturing processes which put such ideas into practice are briefly described; and some theory about cable strength and durability is followed by a short discussion of cable design. There is a somewhat more substantial section on fibre connectors; this is important, as very low-loss fibres must be joined one to another to *achieve overall lengths of tens of* kilometres. Various measurement techniques conclude the fibre half of the book.

Optical sources are treated in two chapters. At present and for the foreseeable future, these will be tiny semiconductor diode devices, either light-emitting diodes (familiar now in hi-fi front-panel displays) or laser diodes (also used to read compact audio discs). The latter type provides the real potential for high-capacity *systems; and again by careful material* improvement, design and fabrication has improved by a vast measure since its invention about 20 years ago.

High-speed light detectors have been developed for other purposes; these again are tiny semiconductor diode devices. A chapter is devoted to *receiver noise under various types of* modulation, which is the limiting factor in receiver sensitivity and hence in the length and information capacity of a particular fibre communication system. Design considerations for a complete system are gathered together so that its expected performance can be estimated. Finally, applications and future developments are grouped together in what will probably turn out to be the most transitory part of the book.

Overall, this is the best text yet produced on the subject. As the third in a series on optoelectronics from Prentice-Hall, it is the most specialized, although it covers much of the ground addressed by John Gower in *Optical Communication Systems* (reviewed on June 29, 1984). Both books are worthwhile for the small but growing band of students in the subject; Senior's book should provide a useful source for several years to come.

P. J. R. Laybourn

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Ford Madox Brown's 19th-century mural in Manchester Town Hall depicts the English chemist John Dalton collecting marsh-fire gas. Dalton stirs up the mud in a stagnant pond, while a farmer's boy collects the bubbles in a jar. From *Art and Architecture in Victorian Manchester*, edited by John H. G. Archer (Manchester University Press, £29.95)

Rural change

The Countryside Handbook
edited by Alan Rogers, John Blunden and Nigel Curry
Open University, in association with the Countryside Commission
Croom Helm, £5.95
ISBN 0 7099 1948 4
The Changing Countryside
edited by John Blunden and Nigel Curry
Open University, in association with the Countryside Commission
Croom Helm, £11.95
ISBN 0 7099 3297 9

That the British countryside exists as a dynamic phenomenon has been publicized almost ad nauseam by the recur*rent paraphernalia of academic books* and papers on the rural theme in recent years. That the changing countryside represents an important national issue has been less successfully transmitted into the public realm, at least in part because of the academic parochialism which pervades this paraphernalia.

The joining together of the media power of the Open University and the institutional influence of the Countryside Commission to produce a television series, a home study course and two textbooks on the theme of the changing countryside is therefore bound to have a huge impact on the diffusion of countryside issues into the public's awareness. Merely by adopting the countryside as a suitable theme for exposure, the advent of a major new Open University course, regardless of the quality of its accompanying literature, serves to legitimate and elevate rural issues. It is especially pleasing in this case that excellent editorial control over a collection of expert contributors has served to produce a fluent and knowledgeable handbook both for course participants and, for a wider readership.

The Countryside Handbook offers an encyclopaedic review of legislation, organizations and official documentation connected with the management and planning of and participation in rural areas. This represents a staccato but nevertheless essential file of reference material without which course *participants would be devoid of a basic* framework within which to place the wider issues of the countryside. The handbook is a useful compendium in its own right but also serves the important function of ridding the major narrative text, *The Changing Countryside*, of tedious interruptions *to its discussive flow.*

Two themes dominate this latter text. First, what are the factors which underpin the disappearance of traditional rural landscapes and the conversion of traditional villages into either *dormitory settlements* or centres of holiday and retirement homes? Second, how and why have these changes taken place over time? Accordingly, four key issues are selected – expanding agricultural productivity, containing settlements, conserving the wild, and sustaining rural communities – *each of which is subjected to an* analysis in terms of historical development, present conditions and future prospects. Aside from this traditional form of analysis, the basic text is overlain with decorations rather like a Christmas tree liberally strewn with baubles and tinsel. Over 100 illustrations *are interspersed with a chapter*-by-chapter offering of opening quotations, closing grassroots comments from relevant practitioners, and pocket reviews of "actions to steer change" and "who benefits and who loses". This illustrative material succeeds in providing the reader with a whiff of the *atmosphere of conflicts in the country*side not found in other books.

So far, then, so good; as this range of qualities seems to give full justification to the Countryside Commission's sponsorship of the project and certainly provides both the baptized observer and the lay reader with a coherent and informative account of rural change. As this high-quality treatment is systematically and inexorably applied to the *selected range of issues*, however, there arises a danger that the book's strength will also become its weakness. In their assessment of the needs of the book's potential mass clientele, and no doubt with at least one eye on the requirements imposed by Countryside Commission sponsorship, the editors have adopted a format which is "predicated on the desire to provide information coolly and objectively, ultimately leading the reader to make up his/her mind better about what is wanted for the countryside". Such a format, however, resists any desire to emphasize any particular socio-political framework (such analyses are "best developed at length and used within the context of university courses") and seeks to avoid mention of "that whole range of books that are polemical in tone and lead the reader *towards* a particular point of view relating to the countryside".

Yet in recording how and why rural change takes place, the contributors have of necessity had to delve into social, economic and cultural influences as well as the politics of planning both by control and by the promotion of change. By attempting to give their readers a view of all sides of each issue, the editors have ended up wobbling precariously on top of the rural fence. Inevitably, the "objectivity" of this approach is compromised by the value-laden selection of arguments and other snippets presented to the reader. Equally inevitably, and despite the editors' desire for an unbiased review, the book very clearly highlights both the distribution of decision-making power within countryside matters and *the strength of the various interest* group lobbies to which this configuration of power so often responds. As a result, what is planned as an account which sees all sides of an issue, sometimes turns out as an overgeneralized and occasionally trivialized treatment of complex ideological issues. The book therefore does not achieve total success in its aim of objective treatment, neither does it do its readers the service of interpreting polemic and exposing untenable propaganda.

These two books in combination will achieve enormous success in attracting widespread interest in countryside issues. Within the rather *limited* structure which has been adopted, the contributors have provided two most scholarly volumes. It is to be *hoped* that having raised questions about the *countryside in this way*, this powerful team will now provide us with a follow-up which tackles some of the answers, ideologically constrained though these may be, in some depth.

Paul Cloke

Paul Cloke is lecturer in geography at Saint David's University College, Lampeter, and editor of "Journal of Rural Studies".

BOOKS

Teaching reforms

Learning More and Teaching Less: a decade of innovation in self-instruction and small group learning
by Dina M. Brewer
Society for Research into Higher Education/NFER-Nelson, £12.95
ISBN 1 85059 003 6

Although this book presents a careful*ly documented account of the evolu*tion of a botany course at the University of Sydney between 1969 and 1978 and is therefore especially relevant to biologists, it should be read by all those seriously involved with teaching and learning in higher education. The research and excellent analysis of ideas it contains – meticulously recorded by Dr Brewer and her colleagues – is worthy of much wider dissemination.

Dr Brewer's main objective was to "find a method by which the teachers teach less and the learners learn more", pointing out that many innovations in teaching have been tried, but *few have been critically assessed for* their efficacy by quantitative techniques over the long-term. Furthermore, most university teachers in subjects other than education rarely venture into those educational journals where even short-term innovations in teaching and learning are recorded. In this respect, *the book has two functions:* "a handbook for practitioners and an advocate's case for reform of teaching techniques".

Chapter one, which introduces the reader to the development of the project and its evaluation, illustrates clearly that the major influences for change from a *traditionally taught* plant anatomy course (lectures and laboratory classes), inherited by Dr Brewer in 1965, were a concern for the needs of the learner and a visit by Professor Sam Postlethwait from Purdue University to Sydney in 1968. Postlethwait had earlier pioneered a modular course in botany at Purdue using a variety of audiotapes, slides and printed sheets incorporating information, questions and practical exercises. It was the catalyst that Brewer was seeking: it resulted in the setting up of a self-instructional learning centre at the University of Sydney in 1969, from which the present project evolved into "self-instructional modules and interactive groups" (SIMIG). Such "tools for learning" are discussed in detail in chapters two and three.

As Brewer points out, in the early stages of the project "no attempt was made to monitor the change in a rigorous way. There were no experimental and control groups; all students used the new method of self-instruction". Nevertheless, detailed records relating to self-instructional modules (SIM) were kept from 1969 onwards. But events were to take a new turn in 1972, with the introduction of a specially designed seminar room, permitting a more suitable environment for *peer-group cooperation* and learning; and the introduction of these interactive groups reinforced and extended the learning achieved by self-instruction: hence, SIMIG. The *benefits obtained from the two com*plementary styles of learning led to more extensive monitoring of the SIMIG course between 1975–78, and chapters four to seven present information about the methods of assessment used, including final examinations and the factors that influence *student performance*; weekly tests to measure progress; and individual student profiles.

Indeed, the chapter on characteristics of the individual student – one of the most fascinating in the book – is relevant to teachers in both secondary and higher education, as it provides one of the most comprehensive attempts at producing quantitative learning profiles, incorporating not only test scores but data concerned with interest in the subject, age, time spent on study, anxiety, sex ratios, general ability, learning preferences, and the processing of materials studied by students. Three concluding chapters provide an evaluation of SIMIG; its application and costing; and the author's long-term reflections on SIMIG.

In the development of the course, the author acknowledges the influence that Postlethwait's audio-tutorial approach to learning has had on the design of self-instructional modules; of Fred Keller's ideas on regular testing of *mastery in learning; and of Jane* Abercrombie and Ken Collier's work on small-group and peer-group learning techniques. The careful application of these approaches to learning, backed up by a battery of test scores examining students' knowledge, comprehension, application and problem solving *abilities, demonstrates that* SIMIG is effective in improving the weekly test score of students over a six-week period.

Furthermore, they reveal that a greater portion of students mastered the course and fewer failed. Good students do consistently well with SIMIG and *would probably do well* with any other system; and although a small number of students do less well, the greatest benefit of SIMIG seems to be with "mediocre students", who perform consistently better. As the author says, "as the method of teaching and learning in groups was *refined, more students mastered* the course and fewer failed". It is not clear, however, how Brewer defines "mediocre students". Although she places them into two profile categories and comments that they "differ in prior experience and entry skills", is their "mediocrity" related to innate ability or to *previously acquired skills and* experience in the subject-matter?

As I have also spent some years developing a biology course which uses both individual and small-group learning methods, I can only admire Brewer's *innovative work, particularly her* critical evaluation over the ten-year period. As she says, "It is the improvement of student learning which is the central concern of this book . . . evaluation of weekly assessment tests and assessment by final examination have been used consistently year by year, to *improve student's learning. As new* challenges arose, I had to make new responses; most of these were in the manipulation of media and refinements of techniques used in group discussions".

This book, together with the references cited, provides valuable in*formation to those contemplating the* use of SIMIG (or something similar) in their own courses. It is well organized, and despite the considerable amount of numerical data, histograms and pie charts, very readable. However, the references might have been more helpful if they had included a few more *alternative innovative experiences* for example, the guided design programme in engineering at West Virginia University and the self-study course for first-year zoology students at University College, Cardiff.

Michael Tribe

Michael Tribe is lecturer in biological sciences and education at the University of Sussex.

Engraving of a dodo (1801), from the *Oxford Illustrated Encyclopedia*, volume two: *The Natural World*, edited by Malcolm Coe (Oxford University Press, £15.95).

Maths lessons

Renegotiating Secondary School Mathematics: a study of curriculum change and stability
by Barry Cooper
Falmer Press, £15.95 and £8.95
ISBN 1 85000 014 X and 013 1

At a time when changes are being demanded at all levels of our educa*tional system, it is especially valuable* to stand back and, by considering a historical example, try better to understand how groups can help motivate curricular change, the ways in which they operate to propagate opinions and obtain resources, and the manner in which aims can be translated into *practice or, alternatively, forgotten.* Dr Cooper's book enables us – indeed, it encourages us – to reflect upon such matters.

The major part of the book tells of the sequence of conferences and the public debate (carried out in the columns of the *The Times*, in Parliament *and elsewhere*) which *led to the* reform of the secondary-school mathematics curriculum in the early 1960s. Later sections contrast the experiences of two major projects: the School Mathematics Project (SMP) and the Midlands Mathematical Experiment (MME).

Rather than writing from a purely mathematical point of view, Cooper has adopted a sociological framework, so that his book should interest general readers from the sociology of education and curriculum studies. Indeed, the many references to sociologists of science, education and the professions add greatly to the exposition and *should help the reader's understanding* of the processes of change. For example, when considering why initiatives to lessen the amount of "abstract" mathematics in both schools and universities had so little effect on the latter, Cooper writes: "the university [mathematicians] . . . did have con*siderable success in convincing school* teachers of the 'need' for change in school practice, while fending off attacks 'from below' on their own curricular practices". But why did a move which initially sought to improve the teaching of the applications of mathematics eventually become iden*tified with the introduction of abstract* pure mathematics into schools? To what extent was this due to the lack of appropriate university examples to imitate (and an abundance of inappropriate ones)?

Similarly, other questions remain unanswered. For example, are ex*aminations a potent instrument for* curriculum change? Although the view was expressed in 1957 that, in order to change the teaching of applied mathematics, all one had to do was to provide examination questions on "realistic physical affairs" and schools would "rapidly fall into line", it did not work out quite so simply. Have the lessons been learned?

What effect has the multiplicity of associations and committees had on the well-being of mathematics education? Cooper describes the origins of the Association of Teachers of Mathematics, of the Institute of *Mathematics and its Applications (to* which, it was asserted, "all types of mathematicians" would "naturally belong"), and of the first in a line of coordinating bodies, the Joint Mathematical Council. The position has since become even more complicated.

Can the school mathematics curriculum safely be entrusted *to mathemati*cians? There is, for example, no reference in Cooper's book to any contributions to the debate from the engineering institutes, the Institute of Physics, or the Association for Science Education.

How much and in what ways does *"status" matter? How much should it* matter? Cooper, tells us for example, that the Nuffield Foundation and the Ministry of Education both discounted MME on the grounds that it could not match the "quality" (number of Cambridge firsts?) to be found within SMP.

These are but a few of the questions *which arise from a reading of this* valuable book. Despite its reliance on printed, public statements which often conceal personal motives, it offers an interesting perspective on happenings on which everyone involved in curriculum development can reflect with profit – even if it does describe a bygone age *when the secondary-school* curriculum could be renegotiated without the ministry and its satellite bodies playing a central role.

Geoffrey Howson

Professor Howson is director of the Centre for Mathematics Education at the University of Southampton.

A collection of articles on New Directions in Geographical Education has been edited by David Boardman and published by Falmer Press at £14.95 and £7.95.

Multi-media methods

Introducing Computer Assisted Learning
by Philip Barker and Harry Yeates
Prentice-Hall, £10.95
ISBN 0 13 477308 X

The increasing use of the computer as a teaching/learning instrument is stimulating a variety of training and diploma courses, for which tutors and students alike will require textbooks that can provide a secure base for guiding teaching practices and the discussion of the theoretical principles underpinning them. Barker and Yeates concentrate on the former aspect, so that their book would be relevant for non-specialists who are introducing or developing computer-assisted methods in the classroom or in commercial/industrial training. However, although it is nearly 400 pages long, clearly written, liberally illustrated with diagrams and schematics and thoroughly referenced chapter by chapter (with a useful glossary of technical terms), there are limitations in its scope (which the authors clearly recognize) and in its educational perspectives.

Barker and Yeates view computer-assisted learning (CAL) as an information or knowledge communication system embracing the teacher, the learner and the computing system itself. Thus, the first chapter summarizes the hard*ware, software and interface compo*nents needed to manage such communication, and outlines the functions CAL can usefully assume in schools, in further and higher education, in commerce and training, and in the teaching of the disabled. This leads to a chapter on the design and preparation of courseware. As yet, however, there is no adequate design technology for the variety of materials which are needed by CAL, and the book breaks no new ground here. Indeed, it draws on the methods stimulated by the programmed learning movement of the 1960s, emphasizing objectives and their analysis in order to indicate the main *learning sequences* or pathways supported by remediation and reinforce*ment strategies.*

This section is followed by a review and comparison of several author languages, already available on mainframe computers and microcomputers, which can be used by teachers for the preparation of textual CAL materials without formal experience of *computer programming.* The authors' synopses, however, only pick out the main features in an uncritical way, and the simple examples (although they make their points) underplay the varied ways author languages can be used in developing, for example, simulation exercises, learner-controlled systems, and *creative writing* projects.

The main and distinguishing feature of the book is its advocacy of multi-media CAL, and two large chapters are given to an explanation of its advantages, principles and applications. The argument is that many *learning applications require materials* which employ different presentational modes – for example, speech output, pictorial slides, videotapes/videodiscs, and robotic devices, as well as textual *materials* given by workbook or delivered by the computer. All those require a variety of communication methods such as keyboards, function pads, touch-sensitive screens and joysticks.

The principles of interfacing such *equipment to the microcomputer* and of controlling its working are clearly explained; and from this, the authors develop the notion of an integrated computer-based workstation. They then review several applications, including some large-scale training simulations – mostly taken from industry and commerce, although school-based Logo is also featured. The ways in which authoring systems have been extended to deal with multi-media control are again well explained and specialist needs where the multi-media approach might hold particular advantages. Teachers in schools might consider the book's content less suited to their experience, although the increasing availability and power of author languages on smaller microcomputers, and the increasing variety in CAL applications, could counter this judgement.

J. R. Hartley

J. R. Hartley is director of the Computer Based Learning Unit at the University of Leeds.

Although this book has seen careful preparation, the authors have been content to limit their objectives and follow a descriptive approach. The result makes the reading somewhat flat and even-paced: few issues are sharply defined or critically discussed. However, the material is unpretentious in style and fair in its statements; through its references, the book should serve as a general introductory handbook. It is likely to be of most benefit to those teaching in commerce/industry, in further and higher education, or in centres dealing with students with special needs where the multi-media approach might hold particular advantages. Teachers in schools might consider the book's content less suited to their experience, although the increasing availability and power of author languages on smaller microcomputers, and the increasing variety in CAL applications, could counter this judgement.

The National Art Education Collection opened officially last week at Bretton Hall College of Higher Education (home of the Yorkshire Sculpture Park). The exhibition consists of children's art and historical material related to the teaching of art in schools and colleges and includes work and documents relating to Victor Pasmore, Herbert Read, the Child Art Movement, Marion Richardson and Barclay Russell.

NOTICE BOARD

Chair

Dr David Morgan, reader in electronic engineering at the University of Leeds, has been appointed professor of microelectronics in the department of physics, electronics and electrical engineering at UWIST.

Mr Anthony Steele is to be the first Ernst and Whinney professor of accounting in the University of Warwick; he is currently lecturer in accounting in the University of Lancaster.

Appointment

Mr Wilson Reddish, who recently retired as research associate at ICI Welwyn Garden City, has been appointed to a visiting professorship in the King's College, London, department of physics.

Professor Reddish is an authority on the properties of dielectrics and an innovator in the field of measurements.

Publications

The British Geological Survey announces the availability of geochemical data for the area covered by the Lake District geological map. The data has been obtained through the Regional Geochemical Reconnaissance Programme of Great Britain and consists mainly of stream sediment samples for up to 28 trace elements.

Data will be presented using the GEMS image processing system at the National Remote Sensing Centre, RAF Farnborough. Other areas covered will be Cheviots, Sutherland, Hebrides, Great Glen, Moray-Buchan, Tay-Forth and Argyll-Tiree.

Users of the service will be able rapidly to interpret element relationships to highlight those favourable for further prospecting work.

For full details, contact Mr M. D. Forrest, Mineral Resources and Applied Geochemistry, British Geological Survey, 154 Clerkenwell Road, London EC1R 5DU tel 01 278 3281.

Promotions

GLASGOW COLLEGE OF TECHNOLOGY

Readerships: Dr Joseph Bleicher (sociology – hermeneutics of social science); Dr Margaret Cuiler (human physiology effects of drugs and toxins on growth); Dr Gordon Dickson (risk management (psychological aspects of risk and risk taking); Dr Vikram Jha (mathematics – finite geometries and algebra); Dr Hugh McLachlan (sociology – philosophy of science).

EXETER

Personal professorships: Dr R. W. K. Odoni (number theory); Dr P. Kline (psychometrics).

Readerships: Dr M. J. A. Howe (human cognition); Dr T. J. Shuttleworth (animal physiology).

Senior Lecturerships: Dr P. F. Corbin (English); Dr J. R. Porter (economic history); Dr J. R. Sambles (physics); Dr W. H. Taylor (education); Dr J. H. Tripp (child health); Dr C. G. Rowland (postgraduate medical school).

Grants

ASTON

Dr D. Smith, Professor R. Loveridge and Dr R. Whipp, £36,030 from ESRC (rationalization and response in Bournville, Northfield); Mr T. H. E. Richards and Professor K. Foster, £117,367 from SERC and £63,059 from Lucas Aerospace (teaching company programme); Dr A. Amass and Dr M. Beevers, £10,000 from British Technology Group (liquid crystals); Professor M. R. W. Brown and Mr P. H. Wetter, £55,239 from Cystic Fibrosis Research Trust (relationship between lung infection, immunology, iron status and therapy in various cystic fibrosis patient groups); Mr P. Linfield and Professor G. F. A. Harding, £323,388 from Department of Transport (directional light emitting information display systems).

LEICESTER

Dr R. C. Bagshaw, £12,817 from SERC (kinetic mechanism of molluscan myosin adenosine triphosphatase activity); Dr A. J. Rivett, £65,070 from MRC (mechanism of nonlysomal protein degradation on mammalian cells); Professor H. Smith, £48,096 from AFRC (phytochrome control of the transcription of nuclear genes for chloroplast proteins in light grown peas); Professor H. Smith, £33,092 from NERC (ecology and physicology of shade perception); Dr F. M. Guille, £22,750 from SERC (Y-irradiation induced damage to deoxyribonucleic acid and synthesis of DNA binding); Professor M. C. R. Symons, £70,384 from SERC (development of superheterodyne Q-band spectrometer for radiation damage and other studies); Professor M. Clarke, £51,250 from Leicestershire Health Authority (health and social needs of the elderly); Professor M. Clarke, £50,000 from Nuffield Provincial Hospitals Trust (health and social needs of the elderly); Dr B. R. McAvoy, £14,324 from Leicestershire Hea Authority (Asian women and contraception); Dr C. L. N. Ruggles, £11,750 from SERC (computer based studies in archaeoastronomy and related areas); Mr P. A. Clark, £10,420 from SERC (small towns in France and Britian, 1600 to 1850); Dr P. Ashton, £190,000 from DES (centre for evaluation and development in teacher education); Professor G. Bernbaum, £79,500 from DES (centre for social and moral education); Mr A. J. Baden-Fuller, £29,100 from SERC (computer aided design of microwave transistor amplifiers for radio and communications applications); Dr S. J. Wright, £35,680 from ESRC (post-doctoral fellowship in English local history); Dr J. F. Y. Brookfield, £24,520 from SERC (effects of transposable element structure on variation wild populations of D. melanogaster); Professor I. B. Holland ECU 20,000 from Commission of the European Communities (regulation of alpha-haemolysin synthesis and secretion in E. coli); Dr A. M. Heagerty, £18,082 from British Heart Foundation (effect of dietary fat on cation fluxes and blood); Dr G. I. Russell and Dr R. F. Bing, £16,663 from National Kidney Research Fund (distribution of angiotens in II receptors in the kidney in experimental hypertension by autoradiography); Professor J. D. Swales, £17,141 from British Heart Foundation (mechanism of hypertension which follows chemical renal medullectomy); Dr D. Jones and Professor P. H. A. Sneath, £30,617 from MRC (taxonomic studies of lipophilic corynebacteria of medical importance); Dr F. Odds, £29,506 from MRC (effects of antifungal drugs on host-parasite interactions in Candida infections); Professor F. H. A. Sneath, £10,616 from Trent Regional Health Authority (numerical epidemiology of infections); Mr A. R. Fielder and Dr N. Foreman, £94,000 from Wellcome Trust (premature infant vision study); Professor K. A. Pounds, £493,653 from SERC (x-ray astronomy and astrophysics); Professor T. B. Jones, £119,132 from MoD (ionospheric modification by power RF heating); Professor P. R. F. Bell, £10,377 from Trent Regional Health Authority (isolation and transplatation of Islets of Langerhans).

SURREY

Dr M. Ghadiri and Professor R. Clift, £27,133 from National Coal Board (diagnosis of local gas and particle flow in fluidized beds); Mr F. D. Moles, £17,391 from Stern Atkinson Stordy Ltd (modelling studies on an aluminium melter); Dr F. A. Fenladpour and Dr R. J. Litchfield, £19,587 from SERC (tailored adsorbents for efficient recovery of high purity biological products from dilute aqueous mixtures); Professor R. Clift, £19,530 from National Coal Board (filtration of hot gases by ceramic media); Dr N. Toy, £95,690 from SERC (turbulent shear flow); Dr N. Toy, £38,221 from AFRC (wind effects on plastic film greenhouses); Dr N. Toy, £46,389 from MoD (jet in crossflow); Dr K. Bateson, £13,582 from MoD (model submersible control stations); Mr P. F. Coakley, £29,490 from SERC (on board processing for business satellite systems) Dr C. P. Traynor, £23,377 from SERC (spacecraft systems using UK5000 gate array); Dr K. Bateson, £15,229 from MoD (controller for scanning ultrasonic immersion testing tank); Professor K. G. Stephens and Dr P. L. F. Hemment, £51,618 from Extrion/Varian Associates USA (ion beam sensor system); Professor M. B. Waldron, £24,737 from ICI (reinforcement of aluminium and other light metals with SAFFIL alumina fibre); Mr M. G. Bader, £17,348 from MoD (fatigue failure mechanisms in CFRP under variable amplitude loading); Professor A. P. Miodownik, £21,092 from DTI (multicomponent alloy phase diagram assessment); Dr D. G. Edwards, £23,469 from MoD (computation of pressure fields); Professor G. A. Parker, £17,182 from SERC (pneumatic compliant sensor for robot assembly tasks); Professor I. M. Allison, £25,278 from MoD (dynamic response of submerged cylinders); Dr R. C. Mottram, £32,420 from DTI (flow straightener / vortex meter package); Professor G. A. Parker, £12,929 from commerical sponsor (valve project); Dr G. W. Aherne, £16,451 from Cancer Research Campaign (pharmacokinetics and metabolism of the anti-cancer drug VP 16-213); Dr I. Kitchen, £90,000 from Wellcome Trust (developmental neurotoxicity of lead-disruption of opioid system in brain and behavioural consequences); Dr M. Burstall, £27,299 from British Library (classification of books); Professor J. B. Rose and Dr J. R. Jones, £41,334 from British Gas (development of membranes with impurity selectivity); Professor J. B. Rose, £42,930 from MoD (vinyl-type cross-linking resins); Professor R. E. Spier, £241,416 from UKAEA (immobilized animal cells); Dr D. J. Dunstan, £33,510 from SERC (photoluminescence studies of the III-V alloy crystals and devices under high pressure); Professor A. Cocker, Dr D. G. Taylor, Dr S. Cornbleet and Dr B. Johnson, £28,465 from MoD (application of tensor Green's functions to calculation of eddy current distributions); Dr A. R. Adams, £34,414 from MoD (high pressure studies of electical transport in quantum wells); Dr R. C. Johnson, £37,350 from SERC (theory of nuclear reactions at low and intermediate energies); Dr A. S. Clough, £32,617 from SERC (total cross-sections and spin effects); Dr S. Cornbleet, £20,338 from OOD (formulation of mathematical model for ASWE antenna); Dr T. Hearn, £18,650 from West Lanbeg Heath Authority (computer assisted learning); Dr B. Slater, £14,897 from IEE (training provision in independent health care sector); Dr R. Exley, £14,025 from Manpower Services Commission (curriculum in foundation training); Dr B. Salter, £9,476 from Nuffield Provincial Hospitals Trust (strategies for change in nurse training); Professor D. V. Canter, £67,702 from Building Research Establishment (psychology of informative fire warning systems); Professor T. R. Lee, £148,366 from DoE (social research on radioactive waste management); Mr D. Griffiths, £17,680 from ESRC (domestic energy conservation); Professor T. R. Lee, £46,325 from UKAEA (understanding public reactions to nuclear waste management schemes); Professor T. R. Lee, £4,914 from CEGB (public consultation study: Sizewell and Hinkley Point sites); Ms S. L. Arber, Mr A. M. Jones and Dr G. N. Gilbert, £89,280 from ESRC (employment and ageing); Dr A. M. Dale, Dr G. N. Gilbert and Ms S. L. Arber, £5,700 from ESRC (low pay poverty); Dr P. W. Buckle, £9,295 from Health Promotion Research Trust (musculo-skeletal disorders); Dr R. H. Hinton, £14,543 from Cancer Research Campaign (liver cancer caused by agents which function in lipid metabolism); Dr P. Bath, £19,900 from Hawden Trust (humane research on evaluation of cultured renal proximal tubular cells as an alternative to the use of animals in nephrotoxicity testing); Professor J. W. Bridges, £11,000 for FRAME (human tissue culture project); Professor J. W. Bridges, £19,000 from BP Int Ltd (respiratory mutagens).

ULSTER

Dr Norma Reid and Dr Julian Lee, £14,720 from Western, Northern and Southern Health and Social Services Board (the management of weaning); David Bell, £192,252 from EEC (5th annual programme (application of distributed database techniques to international health information system)

SALFORD

Professor G. Procter, £11,240 from SERC (synthetic studies on marine toxin); Dr P. J. Grundy and Dr D. G. Lord, £27,680 from SERC (structural and magnetic investigation of rare earth-iron-boron magnet materials); Dr J. G. Booth and Professor J. W. Tebble, £15,911 from proprietor executive, Ministry of Defence (magnetic domain studies in microwave materials).

LIVERPOOL

Dr J. Lucas, £20,000 from Regional Recall Intel (computerised monitoring and control of welding equipment for space structures in order to produce a fully automated welding system); Professor W. Eccleston, £116,859 from SERC (plasma oxidation for VLSI applications); Professor D. E. H. Hale, £43,232 from SERC (development of a new assay system for studying eukaryotic ribosomal RNA maturation); Professor D. A. Ritchie, £4,315 from SERC (genetic studies of regulation of tyrosine and novobiocin biosynthesis in Streptomyces niveus); Dr C. M. G. van der Berg, £22,489 from MRC (electrochemical study of distribution and speciation of Cu, Zn, V, Mo, Ni, Fe and Ni in sea water); Professor L. R. Delves, £38,497 from EEC (software implementations of basic modules in a large portable numerical library in ADA); Dr M. A. Hennell, £8,304 from SERC (test specification and quality management); Dr M. A. Hennell, £43,560 from SERC (prototype Pascal program validation system)

Universities

UNIVERSITY OF SURREY
NURSING PRACTICE RESEARCH UNIT
RESEARCH SCHOLARSHIP
For the Assessment of Incontinence

Applications are invited from graduate nurses with considerable experience of managing problems or urinary incontinence for the post of Research Scholar in the Nursing Practice Research Unit.

You will undertake a three year study financed by Molnlycke Hospital Products. You should be graduates in nursing or a relevant discipline and have considerable professional experience. You will be responsible for investigating, the nursing assessment of urinary incontinence in community nursing settings within the South West Thames Regional Health Authority.

The appointment will be for three years, and you will be required to register for a higher degree by research.

The appointment will be made at a salary of not more than £7,980 per annum on the Research and Analogous Range 18.

Applications in the form of curriculum vitae (three copies) and including the names and addresses of two referees should be sent to the Regional Nursing Department, South West Thames Regional Health Authority, 40 Eastbourne Terrace, London W2 3QR by 30th September 1985.

Interviews will be held on 9th October 1985.

Further details about the Nursing Practice Research Unit can be obtained by telephoning Professor R. Crow, The Director on 0483 571281, Ext. 474. (70547)

UNIVERSITY OF ABERDEEN
Department of Computing Science

A major new initiative has resulted in the following posts for which applications are invited:

1 SENIOR LECTURER/READER
3 or 4 LECTURERS
4 or 5 RESEARCH FELLOWS/RESEARCH ASSISTANTS

The majority of appointments will be made in the areas of Artificial Intelligence, Knowledge Engineering and Cognitive Science, but candidates from other areas will be considered. The research posts will normally be for a fixed period of three years.

Further the Department is anxious to receive applications for Visitors (at all levels) and postgraduate students.

Salaries: Senior Lecturer/Reader on scale £14,135–£17,705 per annum, Lecturer on scale £7,520–£14,925 per annum, and Research and Analogous Staff on scales IB £6,600–£8,920 per annum and IA £7,520–£12,150 per annum, with appropriate placing. (Scales under review.)

Further particulars and application forms from The Secretary, The University, Aberdeen with whom applications (2 copies) should be lodged by 23rd October 1985. (70591)

University of Ulster

This post is open to both male and female applicants.

FIXED TERM LECTURESHIP IN FASHION
Ref: J85/201
(One year appointment at Belfast)

To contribute to the teaching of Fashion to courses at various levels, to assist with the development and administration of imaginative programmes, and to foster links with industrial and other external bodies. The post will be tenable for one year from 1 October 1985.

Applicants should hold an appropriate qualification and should preferably have had recent experience in the Fashion industry. Teaching experience would be a further advantage.

Salary will be determined by age, qualifications and experience within the range £7,520–£14,925 per annum (under review)

Further details are available from the Staffing Office, University of Ulster at Jordanstown, Shore Road, Newtownabbey, Co Antrim BT37 0QB (Telephone Whiteabbey (0231) 68181, Ext 2248) to whom applications, including a full curriculum vitae and the names and addresses of two referees, should be sent not later than 4 October 1985. (70550)

FUNCTIONAL PROGRAMMING AND ARCHITECTURE RESEARCH AT IMPERIAL COLLEGE

The Alvey Directorate has approved a major programme of work in functional languages and parallel architectures to be undertaken in the Department of Computing at Imperial College. The programme comprises a set of interrelated projects involving collaboration with ICL, Plessey, GEC, British Telecom and Imperial Software Technology covering all aspects of functional languages and related architectures. Research areas involved include user interfaces, program transformation and programming environments, language design, implementation, graph reduction, performance modelling and parallel machine design.

Applications are invited for the following posts.

Project Director (Salary Scale £11,205 – £14,925) + £1,233 London Allowance

Research Assistants 1A, 1B (Salary Scale £6,600 – £12,150) + £1,233 London Allowance

Electrician Technician (Salary Scale £7,548 – £9,015) + £1,250 London Weighting

Applications for the research posts are invited from suitably qualified candidates with a background in mathematics, computing or electronics. Experience in the relevant research areas will, of course, be an advantage but is not considered essential, preference will be given to candidates who can demonstrate proven research potential and/or implementation skills. Courses, including an Advanced MSc. in the relevant areas, are available for successful candidates.

The functional programming section at Imperial College headed by Professor John Darlington, contains many leading workers in functional languages and parallel architectures whose work has given rise to the present projects. The environment for this work at Imperial College is particularly stimulating with good relationships established with groups in Logic Programming, Database and Software Technology. The projects will be well served with computing machinery including personal computers, VAX, ORION, ICL Series 39 model 30 and a prototype ALICE Parallel Graph Reduction Machine.

Funds are available for appointment immediately or at any time during the next four years. Applications including a full c.v., names and addresses of at least two referees and description of research interests should be sent immediately to Miss Sandra Evans, Administrative Assistant, Functional Programming and Architecture Section, Department of Computing, Imperial College, 180 Queen's Gate, London SW7 2BZ from whom further information can be obtained. (70524)

University of Reading
Department of Economics

Applications are invited for the post of

LECTURER

from 1 January 1986 or as soon as possible thereafter. Candidates should have a preferred teaching and/or research interest in regional and/or urban economics, or in environmental economics.

Salary in the scale of £7,520 to £14,925 p.a. (under review) plus USS/USDBPS benefits.

Further particulars and application forms (2 copies) are available from the Personnel Office, University of Reading, Whiteknights, P.O. Box 217, Reading RG6 2AH. Tel: (0734) 875123, Ext. 7280. Please quote Ref. AC/852R. Closing date 18 October 1985. (51819) H/I

University of Reading
Department of Food Science

NEW BLOOD LECTURESHIP

Applications are invited for a post involving the interpretation of physical properties of food systems in molecular terms. The successful candidate will be a physicist/biologist or macromolecular biochemist. The appointment is from 1 January 1986 or as soon as possible thereafter.

Salary on the scale £7,520 to £14,925 p.a. (under review) from 1 April 1985) plus USS/USDBPS benefits.

Further particulars and application forms (2 copies) are available from the Personnel Office, University of Reading, Whiteknights, P.O. Box 217, Reading RG6 2AH. Tel: (0734) 875123, Ext. 7280. Please quote Ref. NB/852R. Closing date 14 October 1985. (51823) H/I

University of Oxford
St Hilda's College

APPOINTMENT OF TREASURER

Applications are invited from men and women for the full-time post of Treasurer in this women's college from 1st January (or as soon after as possible). The post is responsible to the Governing Body for financial planning and control. Experience of financial management and administration is essential.

Full particulars should be obtained from the Deputy Secretary, St Hilda's College, Oxford OX4 1DY, to whom applications (8 copies) should be submitted by 11th October, 1985. (51805) H/I

University of Bradford

LECTURESHIP IN MATHEMATICS

Applications are invited for the permanent post of Lecturership in Mathematics, to be taken up as soon as possible. Candidates should be actively engaged in research in the area of modern applied mathematics.

Salary on scale £7,520 - £14,925 p.a. (under review). Superannuable.

Further particulars and application form from the Deputy Secretary (Ref: L/JA/4/785), University of Bradford, West Yorkshire BD7 1DP. Closing date: 18 October, 1985. H/I (51816)

Royal Postgraduate Medical School
(University of London)

New Blood Lecturer/Senior Registrar in Nuclear Magnetic Resonance
in Department of Diagnostic Radiology

Applications are invited for the post of New Blood Lecturer in NMR, tenable at the Royal Postgraduate Medical School from 1 January 1986 or as soon as possible thereafter. The new Lecturer will join the Medical Research Council NMR Imaging Unit in the Department of Diagnostic Radiology and will be expected, as well as contributing to the work of the Unit, to collaborate with Dr D Gadian at the Royal College of Surgeons on a small bore spectroscopy machine for use with animals and with Dr I Young's team at Hirst Laboratories (GEC Picker International) developing a whole-body spectroscopic unit to be established at Hammersmith Hospital in 1986.

Suitable applicants might be either scientists (up to 35 years) with a particular interest in NMR spectroscopy and imaging; or clinically qualified radiologists or general physicians (up to 38 years) with similar interests. Further particulars for the post can be obtained from the Deputy Secretary, Royal Postgraduate Medical School, Hammersmith Hospital, Du Cane Rd, London W12 0HS (Telephone: 01-743 2030 ext 263). Applicants wishing to discuss the post informally should contact Professor R E Steiner (Telephone: 01-743 2030 ext 553 or 01-743 0258).

The closing date for receipt of applications is 25th October 1985.

University of Strathclyde

DEPARTMENT OF MATHEMATICS
LECTURESHIP IN STATISTICS

Applications are invited from suitably qualified candidates for a lectureship in the Statistics Section. Duties will involve teaching statistics to mathematics students and service classes, and undertaking research in any branch of statistics or probability.

Application forms and further particulars (Ref: 27/85) are available from Staff Office, University of Strathclyde, McCance Building, 16 Richmond Street, Glasgow G1 1XQ.

Closing date for applications: 14 October, 1985.

University College Cardiff
Department of Geology

LECTURESHIP IN SEDIMENTOLOGY

Applications are invited for the above post. It involves broad teaching duties in the context of Geology degree schemes, but carries special responsibility for courses in sedimentology. The successful candidate will be expected to develop departmental facilities and research activity in sedimentology and contribute to long term departmental interests in sedimentary basin analysis. Preference will be given to applicants who have a strong research interest in clastic sedimentology. The appointment will be made at or near the lower end of the lecturership scale.

The scale is £7,520 - 14,925 per annum (under review). Duties to commence in January 1986 or as soon as possible thereafter.

Applications (two copies), together with the names and addresses of two referees, should be forwarded to the Vice-Principal (Administration and Registrar), University College, P.O. Box 78, Cardiff CF1 1XL, from whom further particulars may be obtained. Closing date: 11 October 1985. Ref: 3007.

Details of the Geology Department may be obtained from the Head of Department, Professor M. Brooks, who will be pleased to answer personal enquiries.

University of Southampton
Human Morphology

Applications are invited for the post of

SENIOR LECTURER OR LECTURER IN HUMAN MORPHOLOGY

(from graduates in either Medicine or Science. Experience in teaching Human Anatomy to undergraduate medical students and in research in any field of the anatomical sciences is essential for either post.

The scale is £7,520 - 14,925 per annum (under review). Duties to commence in January 1986 or as soon as possible thereafter.

Applications (two copies), together with the names and addresses of two referees, should be forwarded to the Secretary to the Faculty of Medicine, The University, Southampton SO9 5NH to whom applications from applicants in the U.K. should be sent giving the names, addresses and telephone numbers of three referees not later than 30th October 1985. Please quote ref. no. A3/85/80/TIMES. H/I

Open University viewing

Saturday September 21

BBC1
7.10 Oceanography. A look ahead. (B334: prog 16)
7.35 Evolution. Prehistoric people: unearthing our past. (B364: prog 16)
8.00 Philosophical Problems. Freedom and personhood. (A313: prog 9)

BBC2
8.35 Engineering Product Design. The Hole Design Story. (T392: prog 11)

8.50 World Politics. Structural Power, 3: strategies for change. (D233: prog 11)
7.15 The World Smiles Again – facing the eighties. (U204: prog 16)
7.40* Science foundation course. Quantum theory: simple harmonic and energy levels. (S101: prog 20)
8.05* Matter in the Universe. Gravity and the stars. (S256: prog 1)
8.30 Arts foundation course. The early music hall. (A101: prog 31)
8.55 Graphs, Networks and Design. In conclusion. (TM361: prog 16)
9.20 Discovering Physics. Absurd stars: the physics of white dwarfs. (S271: prog 16)
9.45 Science in Society. Energy through the window. (MD322: prog 9)
10.10 Themes in British and American History. Warfare and welfare. (A317: prog 3)
10.35 The Nature of Chemistry. Conformation in proteins: 2. (S304: prog 32)
11.00 Biology. Behaviour and brain. (S236: prog 16)
11.25 Organic Chemistry. Where from next? (S206: prog 16)
11.50 The Enlightenment. Montgeoffroy: life in a chateau. (A204: prog 16)
12.15 Open Forum. Information programme for OU students.
12.40 Art and Environment. Whatever will be. (AD276: prog 12)
13.05* The Changing Countryside. Scenic Setting. (PD770: prog 1)
13.30 Quantum Theory and Atomic Structure. Atoms and molecules. (SM351: prog 11)
13.55 Themes in History and Literature. Two families: Jerusalem. (A230: prog 2)
14.20* Modern Art and Modernism. Duchamp. (A325: prog 20)
14.45 Shakespeare. *The Tempest*, Act IV. (A361: prog 12)

Sunday September 22

BBC1
7.10 Crustal and Mantel Processes. More: the Viking Mission. (S356: prog 12)
7.35* An Ageing Population. Voluntary workers in the community. (P232: prog 8)
8.00 Biochemistry and Molecular Biology. Immunology – the major histo-compatibility complex. (S322: prog 16)
8.25 The Nature of Chemistry. Nitrogen fixation: 2. (S304: prog 32)
8.50 Europe's jobless. (D208: prog 16)
9.05 The Earth: Structure, Composition & Evolution. Continental Crust: ancient and modern. (S237: prog 15)
9.30 Computing and Computers. Distributed computing – Cambridge case study. (M252: prog 15)
9.55 Mathematics Models and Methods. Fourier analysis. (MST204: prog 31)
9.20* Social Sciences foundation course. Is Social science really necessary? (D102: prog 32)
9.45 Maths foundation course. Modelling pollution. (MU01: prog 25)
10.10 Introduction to Pure Mathematics. The Exam. (M203: prog 32)
10.35 Probability and Statistics. Decision tree analysis. (M245: prog 16)
11.00 Open Forum. Information programme for OU students.
11.25 Personality, Development and Learning. Head start: shaping young lives. (E206: prog 12)
11.50 Biology: Form and Function. Unity and diversity. (S202: prog 32)
12.15 Health & Disease. Life and death in Rio. (U205: prog 2)
12.40 Arts foundation course. The Study Music to be announced
13.05 Art in Italy 1480-1580. Public sculpture: the Piazza della Signoria. (A321: prog 11)
13.30 Engineering Mechanics: Solids. Mechanical vibration. (T232: prog 8)

RADIO 4 (VHF)
6.48 Shakespeare. The language of Shakespeare's theatre. (A361: prog 8)
7.05 Science foundation course. The Climate. (S101: prog 16)

Monday September 23

RADIO 3 (VHF)
6.38 Popular Culture. The Specimen exam paper. (U203: prog 9)

RADIO 4 (VHF)
22.30 Arts foundation course. Folk song and the collectors. (A101: prog 30)
23.55 The Enlightenment. "The Key". (A204: prog 32)

Tuesday September 24

BBC2
6.55* Geology: Britain before man. (S236: prog 16)
8.55* Social Science foundation course. Is Social science really necessary? (D102: prog 32)
23.55* Man's Religious Quest. Three families: Jerusalem. (A208: prog 2)

RADIO 3 (VHF)
6.35 The 19th Century Novel and Its Legacy: The Novel and the Human Image – a personal view. (A314: prog 16)

RADIO 4 (VHF)
23.30* Science foundation course. The climate (S101: prog 16)

Wednesday September 25

BBC2
6.20 Instrumentation, Instrumentation in tools development (T291: prog 11)
6.55* Arts foundation course, The Early Music Hall. (A101: prog 31)
22.30 Modern Art and Modernism. Readymade (A315: prog 31)
23.55* Biology: Form and Function. Unity and diversity. (S202: prog 32)

RADIO 3 (VHF)
6.35 The Romantic Poets. Sexuality and the free mind in the poetry of Shelley. (A312: prog 12)

RADIO 4 (VHF)
23.30 Modern Art and Modernism. What's right and wrong with modernism – 2. (A315: prog 2)
23.50 The Control of Information in British Adult and Education. (E222: prog 11)

Thursday September 26

BBC2
6.30* Maths foundation course. Modelling pollution. (MU01: prog 25)
6.55 Science foundation course. Particle physics: Hadrons, Quarks and Chaos. (S101: prog 31)
23.20 Weekend Outlook.
23.35* Personality, Development and Learning. Head start: shaping young lives. (E206: prog 12)
24.00* Engineering Mechanics: Solids. Mechanical Design in Lits. (T232: prog 8)

RADIO 4 (VHF)
23.30 As Ageing Population. Demographic Aspects and economic dependency. (P252: prog 10)

Friday September 27

THE BRITISH PSYCHOLOGICAL SOCIETY

Psychology Project Award for Schools and Colleges

Entries are invited from Schools and Colleges for the Psychology Project Award sponsored by The British Psychological Society. Working alone or in small groups students are encouraged to carry out 'empirical projects of a behavioural nature' having first received help from a 'local adviser' in a nearby university or polytechnic.

The Project may be part of a General Studies, Science or other programme of study, including 'A' level Psychology. The prize for the best entry will consist of book tokens to the value of £100, for both the students and the school or college plus a certificate.

A free booklet giving full details of the award, advice on how the project should be carried out and the names of local advisers is available from:

The British Psychological Society
St Andrews House
48 Princess Road East
LEICESTER LE1 7DR.

BPS

Please send me the booklet on the Psychology Project Award:

Name .....
School/College .....
Address .....

Universities continued

AUSTRALIA

The Australian
National University
SENIOR LECTURER/ LECTURER FACULTY OF LAW
(Two positions) (New)

Applications are invited for the following posts for which applications close on the dates shown. SALARIES (unless otherwise stated) are as follows: Professor $A54,948; Senior Lecturer $A35,203-$A41,606; other $A25,126-$A34,467. Further details and application procedures may be obtained from The Association of Commonwealth Universities, (Appts), 36 Gordon Square, London WC1H 0PF unless applications are invited direct to The University. Equality of opportunity is University policy.

The University of Melbourne
LECTURER – (LIMITED TENURE) DEPARTMENT OF AGRONOMY & HORTICULTURAL SCIENCE
Reference no. 36/12

An agronomist or plant ecologist is required to assist in pasture agronomy to students in the Faculties of Agriculture and Veterinary Science, to supervise student research and to carry out personal research. The appointee will have experience in field experimentation and a knowledge of modern field work; he or she will have access to experimental sites at Parkville, Dookie, Mooroopna and Camden in New South Wales as well as to facilities for controlled-environment work at the city campus. Interest in weed production, and dynamics of regeneration of temperate pastures and appropriate farm planning would be an advantage.

Applications (eight copies), naming three referees but without testimonials, should be received not later than 4 November 1985 by the Registrar, The University, Parkville, Victoria 3052, Australia, from whom further particulars may be obtained by airmail.

Salary range $A25,126-$A34,467 per annum, depending on qualifications and experience. Initial appointment will be for three years in the first instance, with the possibility of renewal. Assistance with removal expenses will be provided.

Applications (eight copies) should be sent by 30 October 1985 to the Registrar, The University, Parkville, Victoria 3052, Australia, from whom further particulars may be obtained by airmail.

Deakin University, Geelong
PROFESSOR OF AUSTRALIAN STUDIES

Australian Studies is an area study with a commitment to interdisciplinarity shared by other areas in the School of Humanities. The School of Humanities currently offers an undergraduate major sequence focusing on urban Australia, regionalism in Australia and contemporary Australia as well as supervising postgraduate students in a variety of disciplinary and interdisciplinary topics. The appointee will have a commitment to interdisciplinarity, but persons with an relevant disciplinary background are invited to apply.

The University has a strong commitment to distance education through its external programme and the appointee will be expected to contribute to the planning and preparation of materials to its existing courses but off campus students and the development of future on and off campus offerings at undergraduate and graduate level.

25 October 1985.

Monash University, Melbourne
CHAIR OF EDUCATION

A Chair of Education will fall vacant in the Faculty of Education when Professor W. W. Musgrave, F.A.S.S.A., retires in December 1985. The Faculty is non-departmentalised and there are four other chairs in Education. One chair is to be associated with the areas of social and policy studies in education, educational administration, comparative and international education, and social education in schools. Applicants with interests and a suitably strong background of teaching and research in one or more of these areas will be welcomed. Teaching in the Faculty is postgraduate with about 300 diploma/master-education students and more than 100 engaged in advanced coursework degrees or in thesis studies at the master or doctoral level.

Superannuation, travel and removal allowance and temporary housing assistance.

Council reserves the right to make no appointment or to appoint by invitation at any stage.

31 October 1985.

The University of Sydney
LECTURER – (TENURABLE) DEPARTMENT OF AGRONOMY & HORTICULTURAL SCIENCE
Reference no. 36/12

An agronomist or plant ecologist is required to assist in pasture agronomy to students in the Faculties of Agriculture and Veterinary Science, to supervise student research and to carry out personal research. The appointee will have experience in field experimentation and a knowledge of modern field work; he or she will have access to experimental sites at Parkville, Dookie, Mooroopna and Camden in New South Wales as well as to facilities for controlled-environment work at the city campus. Interest in weed production, and dynamics of regeneration of temperate pastures and appropriate farm planning would be an advantage.

Applications (eight copies), naming three referees but without testimonials, should be received not later than 4 November 1985 by the Registrar, The University, Parkville, Victoria 3052, Australia, from whom further particulars may be obtained by airmail.

Salary range $A25,126-$A34,467 per annum, depending on qualifications and experience. Initial appointment will be for three years in the first instance, with the possibility of renewal. Assistance with removal expenses will be provided.

Applications (eight copies) should be sent by 30 October 1985 to the Registrar, The University, Parkville, Victoria 3052, Australia, from whom further particulars may be obtained by airmail.

University of Keele
TEMPORARY LECTURER IN POLITICS

Applications are invited for a one term (January–March 1986) appointment as Temporary Lecturer in Politics (Political Theory), on first four points of Lecturers' Scale (£7,920–£8,980, under review).

Application forms and further particulars from the Registrar, University of Keele, Staffs ST5 5BG, to whom applications (nine copies) should be sent by 4 October 1985.

University of Oxford
PROFESSORSHIP OF RUSSIAN

The electors intend to proceed to an election to the Professorship of Russian with effect from 1 October 1986.

The stipend of the professorship is at present £20,795 (plus a four per cent special payment pending the outcome of *national salary negotiations*).

Applications (nine copies, or one from overseas), naming three referees but without testimonials, should be received not later than 4 November 1985 by the Registrar, University Offices, Wellington Square, Oxford OX1 2JD, from whom further particulars may be obtained.

Salaries will be within the range £7,920 to £18,415 per annum, presently under review (Other Senior Staff ranges IA, II or III), depending upon age, qualifications and experience.

Application forms and further particulars may be obtained from the Personnel Officer (Academic Staff), quoting the appropriate reference number, Aston University, Aston Triangle, Birmingham B4 7ET. Tel: 021-359 3611, Ext. 4563. Closing date for receipt of applications is 18th October 1985.

(51842) H1

Queen's University
Philosophy
APPOINTMENT IN PHILOSOPHY

The Philosophy Department at Queen's University invites applications for an appointment at the rank of Assistant Professor, beginning 1 July 1986. The appointment is for one year, *for a two year maximum.* All subjects considered. Specialization open.

Salary commensurate with qualifications.

Send curriculum vitae, and three letters of reference to Professor A.P. Fail, Chairman, Department of Philosophy, Queen's University, Kingston, Ontario, Canada K7L 3N6. Closing date for receipt of applications, 15 December 1985. Both women and men are encouraged to apply. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. (51906) H1

Aberystwyth
The University College of Wales
POSTDOCTORAL RESEARCH ASSOCIATESHIP IN LASER SPECTROSCOPY

Applications are invited from physicists or chemists with experience in lasers and/or spectroscopy for a SERC sponsored post to work on the newly developed technique of Coherent Anti-Stokes Raman Spectroscopy (CARS) for the study of magnetic fields in absorption spectroscopy by many workers of magnetic fields have the sensitivity of non-linear spectroscopy of gaseous species, excited state lifetimes and to provide, for the first time, direct measurements of spectroscopic determinations of spectral *concentrations* for atoms and radicals in gas and condensed phases. This is envisaged initially for one year in the first instance, with a possible extension for a further year.

Salary range £7,920 - £7,980 (Research I).

Application forms and further particulars may be obtained from the Staffing Officer, The University College of Wales, Old College, King Street, Aberystwyth SY23 2AX (Tel. 0970 3177, Ext. 2071). Closing date for applications: Friday, 11 October 1985. (51855) H1

The University of Zambia
School of Veterinary Medicine

Applications are invited for
SENIOR LECTURER/ LECTURERS
In Physiology (1 post)
Pharmacology (1 post)
and
Biochemistry (1 post)

Applicants will be required to assist in the teaching of their respective subjects and to participate fully in the academic development of the School of Veterinary Medicine. They should have a Ph.D. degree in their discipline, and a primary degree in Veterinary Medicine would be an advantage. Applicants with previous teaching experience would be preferred and such experience would be a necessary qualification for a senior lectureship. The School has been recently established, so opportunities exist for career development and research.

The posts will be tenable from January 1986 and candidates will be for two years initially.

Salary will be in accordance with qualifications and experience in the range of K8,400 - K13,420 (£13,853.08). Other benefits include family passages, annual leave and housing allowances. The tertiary level, government may provide salary supplementation in the range of £11,424 - 14,272 per annum for a married appointee and £8,032 - 11,100 for a single appointee.

Further particulars may be obtained from the Dean, School of Veterinary Medicine, P. O. Box 32379, Lusaka, Zambia or from the Overseas Education Officer, Appointments Department, British Council, 90-91 Tottenham Court Road, London W1P 0BT.

Candidates should send three copies of their curriculum vitae with full personal particulars, and names and addresses of three referees to the University Secretary, University of Zambia, P.O. Box 31338, Lusaka, Zambia. The closing date for applications is 18 October 1985. Candidates resident in UK should apply their applications to the British Council, 90/91 Tottenham Court Road, London W1P 0BT. (51852) H1

University of Birmingham
Centre for Computing and Computer Science
SENIOR POSTS IN NETWORK SERVICES

Applications are invited for two complementary Computer Officer posts in the specialist important area of local and wide area networks from graduates with experience of the development of network software and/or the operation of network services.

Salary according to age, qualifications and experience will be on the Computer Officer scale £6,600 – £12,975, currently under reassessment.

Further particulars from Mr. A. F. Evans, Senate Division, The Secretary, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom applications (3 copies) including full Curriculum Vitae naming three referees should be sent by Friday, 11 October 1985. H1

University of Oxford
MONTAGUE BURTON PROFESSORSHIP OF INTERNATIONAL RELATIONS

The electors intend to proceed to an election to the Montague Burton Professorship of International Relations, which is currently vacant.

The stipend of the professorship is at present £20,795 (plus a *four per cent special* payment pending the outcome of national salary negotiations).

Applications (ten copies, or one from overseas), naming three referees but without testimonials, should be received not later than 4 November 1985 by the Registrar, University Offices, Wellington Square, Oxford OX1 2JD, from whom further particulars may be obtained.

(51840) H1

University of Oxford
***CHICHELE* PROFESSORSHIP OF THE HISTORY OF WAR**

The electors intend to proceed to an election to the Chichele Professorship of the History of War with effect *from 1 October 1986.*

The stipend of the professorship is at present £20,795 (plus a four per cent special payment pending the outcome of *national salary negotiations*).

Applications (ten copies, or one from overseas), naming three referees but without testimonials, should be received not later than 4 November 1985 by the Registrar, University Offices, Wellington Square, Oxford OX1 2JD, from whom further particulars may be obtained.

(51845) H1

Brunel University
Department of Mathematics and Statistics
TEMPORARY LECTURESHIP IN COMPUTATIONAL APPLIED MATHEMATICS

Applications are invited for a two-year *temporary* lectureship in Computational Applied Mathematics. Applicants should possess strong research records in computational methods and their use in some branch of applied mathematics. They must also be able to supervise numerical analysis projects for students at both the Masters and third year undergraduate levels and be ready to teach mathematics at the under-graduate level to both mathematicians and non-mathematicians.

Salary will be on one of the first five points (maximum £9,390) on the Lecturer scale (£7,320 - £14,925 under review), plus £1,255 per annum London Allowance, with USS benefits.

Application form and further details may be obtained from the Personnel Secretary, Brunel University, Uxbridge, Middlesex UB8 3PH, on receipt of a self-addressed envelope. Closing date: 11 October 1985. (51824) H1

Cambridge
St Catherine's College
CHAPLAIN

Applications are invited from ordained members of the Anglican Communion for the post of Chaplain for three years (with the possibility of an extension for a further two years) from 1 October 1986. *Some pastoral experience* subsequent to ordination will be an advantage.

An appropriately qualified Chaplain may be elected to a Fellowship without stipend. opportunities for the Chaplain to undertake a limited amount of teaching.

If unmarried, the Chaplain will be expected to live in College, in rent-free accommodation. A rent-in-lieu of stipend can be provided for a married Chaplain.

A salary within the range of £5,700 - £7,900 p.a. with free board and lodging.

Applicants should submit a Curriculum Vitae and the names of two referees to the Master (St Catherine's College, Cambridge CB2 1RL) by 30 October 1985. (51825) H1

Massey University
Palmerston North,
New Zealand
LECTURER/ SENIOR LECTURER IN MARKETING

Applications are invited for a lecturing position in the Department of Marketing. Applicants should have a degree in business with specialisation in marketing. Candidates with exceptional qualifications and experience will be considered for appointment at the senior lecturer level. Evidence of a strong interest in research will be desirable. An appointee will be required to undertake research and postgraduate supervision and to contribute to the Department's undergraduate programmes.

Salary scale: NZ$ 25,750 × 1,550 - 30,400 (approx. £25,170 - 28,150 sterling equivalent as at September 9, 1985). Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 17% of gross income. Housing benefits at a subsidised rate of $NZ284,000 (approx. £25,600 sterling). Salaries are presently under review and revised scales can be expected to apply to these positions.

Conditions of appointment are available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF; or from the Appointments Unit, Secretary's Office, University of Hong Kong. Hong Kong. Closes 30 November 1985. (51857) H1

University of Hong Kong
LECTURER IN BIOCHEMISTRY

Applications are invited for a Lectureship in Biochemistry *at the University of Hong Kong.* Candidates from any field of research will be considered although Departmental accommodation and facilities are good, and a high degree of co-operation exists among members of staff in both teaching and research. Annual intake comprises 130 medical students, 60 dental students and approximately 30 science students.

Annual salary (superannuable) is at an 11-point scale: HK$160,980 - 269,100 (approx. £14,010 - 24,820 sterling equivalent as at September 4, 1985). Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 17% of gross income. Housing benefits at a rental of 7½% of salary, children's education allowance, leave, and mental benefits are provided.

Further particulars may be obtained from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Secretary's Office, University of Hong Kong. Hong Kong. Closes: 23 November 1985. (51856) H1

University of Nairobi
Kenya
SENIOR LECTURER
Institute of Computer Science

Applicants should possess a Ph.D. degree with at least two years' post-doctoral experience in Computer Science, Information Systems or Computer Engineering. Preference will be given to applicants with experience in Microcomputer Methodology. Nine computing centres, a satellite and Laplink-ing together with expertise in some branch of applied mathematics. They must also be able to supervise numerical analysis projects for students at both the Masters and third year undergraduate levels and be ready to teach mathematics at the under-graduate level to both mathematicians and non-mathematicians.

Salary scale: K£3,750 × 4,150 - K£5,400 per annum. (£1,923-2,821).

Applicants should give full personal details of their qualifications, experience and research activities, publications and their awards, in which these appear. Names and addresses of three academic referees and their current telephone numbers should be given. Applicants should address their applications to the Recruitment and Training Section, University of Nairobi, P.O. Box 30197, Nairobi, Kenya. They should also state the salary and other financial benefits in their current appointment. Copies of certificates must also be attached. Applicants resident in the should copy their application to the British Council, 90/91 Tottenham Court Road, London W1P 0BT.

Terms of service will include study leave with pay on full *Staff Superannuation Fund*, or a gratuity at the rate of 25% basic salary, subsidised housing or a generous housing allowance, assistance with passages for up to five adults on appointment, termination and leave on tours.

The British Government may provide salary supplementation of £15,000 per annum for a married appointee and £11,784 per annum for a single appointee.

(51851) H1

University of Hong Kong
SENIOR SUB-LIBRARIAN (TECHNICAL SERVICES)

Applications are invited for the post of Senior Sub-Librarian (Technical Services) in the University of Hong Kong Libraries. Applicants should have a higher degree or *professional status diploma in* librarianship (ALS, ALA or equivalent) and at least five years experience in a senior supervisory capacity in an academic library. Experience in the planning and implementation of library automation would be an advantage, as would foreign language ability. Individual will be responsible for overall management of all aspects of technical services and, under the direction of the University Librarian, will assist in the administration of the Library.

Annual salary (superannuable) is on a 6-point scale: HK$280,800 - 304,920 (approx. £25,170 - 28,150 sterling equivalent as at September 9, 1985). *Starting* salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 17% of gross income. Housing benefits at a rental of 7½% of salary, children's education allowance, leave, and medical benefits are provided.

Further particulars and application forms may be obtained from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Secretary's Office, University of Hong Kong. Hong Kong. Closes: 30 November 1985. (51858) H1

Massey University
Palmerston North,
New Zealand
LECTURERS IN HORTICULTURAL PLANT SCIENCE

Applications are invited for two Lectureships in the cultivation of horticultural crops in the Department of Horticultural Science. Applicants will possess with postgraduate qualifications in plant science. Applicants should have sound general knowledge of horticultural plant form and function, ecology and genetics. A detailed interest in either environmental crop ecology, management, post-harvest physiology, or post-harvest production, or post-harvest physiology would be preferred. Although teaching will mainly be in horticulture, undergraduate degree supervision of postgraduate course work and research will be required.

Excellent opportunities exist for interaction with plant *scientists*, both on campus and in closely associated research organisations.

Lecturers' salaries range from NZ$25,750 - $30,400 *per annum* and are currently under review; the level of appointment will depend upon qualifications and experience.

Further details may be obtained from the Secretary (Appts), 36 Gordon Square, London WC1H 0PF, or from the Registrar, University of Keele, Staffs ST5 5BG, to whom applications (nine copies) should be sent by 4 October 1985.

Aberystwyth
The University College of Wales, Old College, King Street, Aberystwyth
APPOINTMENT OF ITALIAN

Prior to application, further information (including application procedure) should be sent for the Secretary (see Bursar, University College, Cathays Park, Cardiff CF1 3NS. Telephone enquiries: 583244, Ext. 431).

The closing date *for receipt* of completed applications is (51847) Friday 24th October, 1985. H1

University of Bradford
MANAGEMENT CENTRE.
RESEARCH FELLOW
IN DEFENCE SIMULATION MODELLING
(Systems Dynamics)

Applications are invited for the above post which is MOD funded for a period of three years. The work will involve the design and analysis of computer models for command and control processes. The successful candidate will be based at the University of Bradford but will be required to undertake substantial visits to the research establishment in Kent. Applicants should have a good Honours degree and a familiarity with computer simulation methods would be advantageous. Commencing salary is in the range £7,920 - £12,180 p.a. (under review). Superannuable.

Further particulars and application forms (2 copies) may be obtained from the Personnel Office, University of Bradford, West Yorkshire, BD7 1DP, to whom enquiries to Dr E P Wallschleinhofer (0274) 42299 Ext. 277. Closing date 16th December, 1985. (7033)

Cambridge
Girton College
RESEARCH FELLOWSHIP

Applications are invited for a Research Fellowship tenable from 1 October 1986 for three years in all arts subjects. The Fellowship is open to men and women of any nationality. Candidates for a Research Fellowship shall not normally be below the age of 24 years.

The emoluments of the Fellowship are reviewed annually. From 1 October 1985 the stipend for a person who has not completed a Ph.D. is £4,500 per annum, for a person with a Ph.D. £6,065-10* per annum rising by two increments to £6,278* per annum. Financial support from other sources may be taken into account.

Fellowships are pensionable under USS. If the Research Fellow is married a child allowance of £350 per annum for the first child is made. Research fellows will if they wish be permitted to teach up to six hours per week. Residence is not required, if required, and commons (i.e. meals) are free of charge.

Applications on a form which may be obtained from the Secretary to the Governing Body, Girton College, Cambridge CB3 0JG, must be returned to her not later than 14 October 1985. A statement of approximately 1,000 words describing the work candidates wish to submit in support of their applications and the research they propose to do if elected will be required at the same time as the application is returned. Candidates must in short-listed he/she will be asked to submit work in support of the application.

Since the College is advertising for a Research Fellow in the Sciences candidates in Physics should state when writing for an application whether or not their subject of research is an Arts or Science subject.

* It is likely that these stipends will be increased by the cost of living allowance applied to University teaching officers. (51770) H1

University of Warwick
Department of Engineering
LECTURESHIP IN ELECTRONICS

The post is permanent and full-time but applications will also be considered from candidates prepared to accept a part-time appointment or temporary secondment from industry. The lectureship has been established to support the growth in the Engineering Electronics B.Sc. degree programme that has been developed under the Government's 'Engineering and Technology Programme'. The successful applicant will be expected to contribute to research in Electronics, preferably in association with an existing group such as VLSI, Digital Image Processing, Optoelectronics, Telecommunications and Electrical Materials.

Salary on the Lecturer scale £7,560 - £14,925 under review; pro-rata for part-time appointments.

Further details and application forms are available from The Registrar, University of Warwick, Coventry CV4 7AL. The closing date is 31st October 1985 Please quote Ref. No. S/A/85/L. (51831) H1

University of Oxford
St. Anne's College
The College is seeking a
TEMPORARY LECTURER IN ENGLISH

for Hilary Term 1986, to teach twelve hours per week for the paper 1660-1785.

Further particulars may be obtained from the College Secretary, St. Anne's College, Oxford OX2 6HS, to whom applications, together with the names of two referees, should be sent *not later than* 7 October 1985. (51904) H1

New College Oxford
OFFICIAL FELLOWSHIP IN PHILOSOPHY

The College intends to elect an Official Fellow in Philosophy with effect from 1 October 1986. Fellowship, which is open to men and women, is tenable in connection with a *non-stipendiary* University Lectureship (CUF) which may at a later date (though with no commitment to do so) be the part of the University to be converted to a stipendiary one.

Further particulars and application forms which should be returned not later than Friday 25 October may be obtained from the Tutorial Secretary, New College, Oxford OX1 3BN. (51890) H1

Cambridge
Girton College
RESEARCH FELLOWSHIP

Applications are invited for a Research Fellowship tenable from 1 October 1986 for three years in all arts subjects. The Fellowship is open to men and women of any nationality. Candidates for a Research Fellowship shall not normally be below the age of 24 years.

The emoluments of the Fellowship are reviewed annually. From 1 October 1985 the stipend for a person who has not completed a Ph.D. is £4,500 per annum, for a person with a Ph.D. £6,065-10* per annum rising by two increments to £6,278* per annum. Financial support from other sources may be taken into account.

Fellowships are pensionable under USS. If the Research Fellow is married a child allowance of £350 per annum for the first child is made. Research fellows will if they wish be permitted to teach up to six hours per week. Residence is not required, if required, and commons (i.e. meals) are free of charge.

Applications on a form which may be obtained from the Secretary to the Governing Body, Girton College, Cambridge CB3 0JG, must be returned to her not later than 14 October 1985. A statement of approximately 1,000 words describing the work candidates wish to submit in support of their applications and the research they propose to do if elected will be required at the same time as the application is returned. Candidates must in short-listed he/she will be asked to submit work in support of the application.

Since the College is advertising for a Research Fellow in the Sciences candidates in Physics should state when writing for an application whether or not their subject of research is an Arts or Science subject.

* It is likely that these stipends will be increased by the cost of living allowance applied to University teaching officers. (51770) H1

REMINDER
COPY FOR CLASSIFIED ADVERTISEMENTS IN THE
T.H.E.S
SHOULD ARRIVE NOT LATER THAN 10.00 A.M. MONDAY PRECEDING THE PUBLICATION

THE CITY UNIVERSITY
LECTURESHIP IN COMPUTER SCIENCE

Applications are invited for a new post of Lecturer in the Department of Computer Science or the closely related Centre for Software Reliability.

The person appointed should have proven ability in research and be capable of making a significant contribution *in their chosen field.* He or she will also be expected to contribute to the teaching programme of the department and to co-operate in research with other members of the University.

Present research strengths are in software reliability, artificial intelligence, networking and numerical analysis. It is hoped to reinforce one of the first three areas but applicants with other interesting specialisms in data bases and graphics, will be considered.

The appointment is for five years in the first instance.

Salary will be on the scale £8,753 to £18,108 per annum inclusive of London Allowance.

Further details and an application *form may be obtained from* the Academic Registrar's Office, The City University, Northampton Square, London EC1V 0HB, telephone 01-253 4399, Ext. 2037. Closing date 11th October 1985.

(70551)

UNIVERSITY OF KENT AT CANTERBURY
Experimental Officer
Social Psychology Research Unit

Applications are invited from Psychology graduates for a new post of Experimental Officer in the Social Psychology Research Unit. The post is for one year, commencing as soon as possible.

The Experimental Officer will be required to assist in the teaching of practical and project work, and in the research work of the Unit. Applications from recently qualified graduates are encouraged.

Salary will be in the range of £6,600 - £10,338 p.a. on the Grade 1/5 Scale, but the appointment will not be made above £8,460.

Further particulars and application forms may be obtained from Mr. J. E. Reilly, Secretary of Faculties and Deputy Registrar, University of Kent, Canterbury, Kent, CT2 7NZ, not later than 14th October next. The Registrar of the University

MURDOCH UNIVERSITY
Perth, Western Australia

School of Environmental and Life Sciences
Lecturership in Environmental Science

Has opportunity will contribute to teaching and research within Environmental Science directed to the ecological assessment of impacts of the urban environment and industrial development. Applicants should have a background in Science (or Engineering with research work in environmental monitoring, instrumentation, risk assessment, noise, toxicology or control of pollution) applied to the occupational environment. A post-graduate qualification in environmental science or a related teaching is required (Ref 0928 – post available 1/2/86).

School of Human Communications
Lecturership in Communication Studies

The Communication Studies programme offers courses in the study of mass and interpersonal communication and its social basis. A background and established research interest in social communication and its social basis. A background and established research interest in some disciplinary approaches to communication studies, semiotics, linguistics, structuralism, post-disciplinary approaches to communication studies, semiotics, linguistics, structuralism, post-structuralism, critical theory, psychoanalytic theory, cultural studies, film theory, the economics and sociology of the media would be relevant qualifications (Ref 0929 – post available 1/2/86).

Lecturership in English and Comparative Literature

The programme teaches literature on a comparative and interdisciplinary basis with special attention to literary theory. Qualifications should include fluency in a foreign language and expertise in one of literary theory, Australian literature, poetry and poetics, narrative theory, popular literature, women's studies. The candidate will be expected to teach in an externally taught Master's by coursework programme (Ref 0931 – post available 1/2/86).

Lecturership in Theatre Studies

Murdoch's drama courses possess a comparative approach to the study of theatre and theatre based on theories of function and context and the testing of theories by experiment and production. Applicants should have a specialisation in one of Asian drama and theatre, comparative drama theory, the semiotics of performance, drama and media (Ref 0911 – post available 1/2/86). For details of the present course structure, consult David George (tel (09) 332 3180), Murdoch University.

School of Mathematical & Physical Sciences
Lecturerships in Computer Science (Two Positions)

The School has research interests in software development environments, graphical interfaces, expert systems and data acquisition and control. Preference will be given to applicants whose research interests are consistent with existing work in the School. The appointees will be expected to teach in the undergraduate computer science courses in the areas of data structures and databases, computer hardware, systems analysis and maintenance, programming and introductory programming courses and to help develop the honours programme and postgraduate teaching. *Applicants should have postgraduate* qualifications in computer science or in a related field (Ref. 0933 – post available from 1/2/86).

Lecturership in Organic Chemistry

The School offers a chemistry programme which leads to pass and honour degrees, together with service courses. Current research is in pure chemistry (electro-chemistry, bioorganic chemistry, solution chemistry, etc.) and in applied chemistry (mineral chemistry, analytical chemistry, energy conversion and storage and storage, corrosion) as well as in some multidisciplinary areas. There is access to extensive computing facilities. *Applicants should co-teach Organic Chemistry at all University levels, and should* have active research interests which are consistent with existing work in the School. (Ref. 0930 – post available from 1/7/86).

Lecturership in Mathemathics

Preference will be given to applicants with qualifications and research interests in some branch of statistics or computational mathematics (Ref 0935 – post available from 1/2/86).

Lecturership in Physics

The Physics Programme has established interest in surface physics, solid state physics, solar energy devices, biophysics and atomic physics. The Programme has undergraduate, honours and postgraduate students. Applicants should have a Ph.D. or equivalent in Physics and have a proven record of research in a field related to the Programme's interests. (Ref. 0446 – post available from 1/1/86).

School of Social Inquiry
Lecturership/Senior Lecturership in Finance

This appointment is the first to be made in the finance area and thus the appointee will be expected to plan and develop courses in the area of finance and financial management as part of a Commerce degree. Evidence of research capability and a higher degree are required for a Senior Lecturership. (Ref. 0937B – post available 1/7/86).

Lecturership in Commercial Law

This appointment is the first to be made in law, and the University is planning to establish a Law School within five years. The appointee will be responsible for developing courses in the law of contract and company law. Both courses will be developed as part of the Bachelor of Commerce degree. (Ref. 0939 – post available 1/7/86).

Lecturerships in Economics (Three Positions)

The Economics Programme at Murdoch is undergoing rapid expansion and wishes to appoint new staff with a strong and enthusiastic commitment to teaching and research. Applications are invited from suitably qualified persons for any of the following three appointees, however, will be required to teach business/financial economics: it is also hoped that one of the appointees would teach introductory econometrics. (Ref. 0937 – post available from 1/7/86; Ref. 0941 – post available from 1/2/86; Ref. 0942 – post available from 1/7/86).

Lecturership in Psychology

Applicants should have substantially qualified candidates for the post of lecturer in social psychology. The successful applicant will also have substantial skills in the area of quantitative methods. The position involves sharing the teaching of courses in social psychology and in quantitative methods to students in several disciplines (Ref. 0943 – post available 1/2/86).

GENERAL: Salary Ranges: Senior Lecturerships $A35,203 to $A41,029 per annum, Lecturership $A26,126 to $A34,467 per annum (appointments will normally be made at the lower steps of the grade). These are rewarding appointments and candidates include superannuation, long service leave, outside studies programme, assistance with removal expenses, *appropriate and dependent family, removal and settling-in allowance and house purchase loan arrangements.*

PROCEDURE FOR APPLICATIONS: There is no prescribed application form, but TWO COMPLETE SETS of detailed applications, quoting the appropriate reference number, including full personal particulars, details of tertiary qualifications, career history with description of post held, area of research experience and interest, research completed or currently being undertaken, personal views on teaching, membership of professional associations or societies and positions of responsibility in these, list of relevant material published by the applicant, when available or to take up appointment if offered and the names and addresses of three professional referees, should reach the Personnel Officer, Murdoch University, Murdoch, Western Australia 6150, by 18 October 1985. Applicants resident in the United Kingdom, Europe or Africa at the time of application should also forward ONE further copy to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

(70536)

Imperial College of Science and Technology
(University of London)
SCIENTIFIC POLICY SUPPORT STAFF

Applications are invited for three three-year contract appointments in the salary range of £11,803 - £17,705 *plus* London Allowance of £1,507, for scientific policy staff to support the Advisory Board for the Research Councils in matters of science policy and to undertake a consultancy aspect *role within Medical Industries in the area of training,* planning and research, for people with double degrees.

The appointees will be responsible to Professor Dennis Smith, at the first instance, *through the Professor of Medicine,* Professor J.F. Chalmers, and Dr M.A. Kinlough at the Research Council.

In addition to salary, the appointees will receive a clothing allowance of £400 per annum and will have *limited right to private practice.*

18 October 1985 (70541)

University of Stirling
Department of Sociology
CHAIR IN APPLIED SOCIAL STUDIES (SOCIAL WORK)

The Sociology Department is broadly based offering Undergraduate and Postgraduate programmes in Sociology, Social Anthropology & Social Administration, Graduate Diplomas in Social Work & Housing & Planning Administration, Higher Degrees by Research and In-Service Teaching for a variety of public sector professions. The Department has an established record of applied social research and is the Scottish Social Research Council/ Social Work Services Group (SERD) have recently decided to establish a Multi-disciplinary Research Centre for Social Work in the Department.

Applicants should hold a professional Social Work qualification. They should also feel able to collaborate with and contribute to the wider interests of the Department. The person appointed will become Director of these several years' experience in either industry or academia will be required. Successful candidates will need to demonstrate detachment and balance, a high standard of written and oral presentation and willingness to work in a team under pressure. They are likely to be in their early to mid thirties.

Salary will be negotiable *within the range quoted above* according to age and experience. Secondment terms may be considered.

Further particulars of the appointment can be obtained from Mr. J.R. Davidson, Administrative Secretary, Imperial College of Science and Technology, London SW7 2AZ (01-589 5111, Ext. 6001).

University of Leicester
Lecturer in Social Science Education – G6680/85
(Department of Social Science)

This appointment commences in December 1985. A two year contract will be offered, with the possibility of renewal for a further year. The successful applicant will be expected to teach the residential and distance education components of the Social Science course in *Advanced Diploma in Teaching* (Secondary) students, and also to write the Geography section of the course, paying special attention to the contextual use of English. The Advanced Diploma in Teaching (Secondary) program has been developed to upgrade the subject knowledge and professional skills of experienced teachers in Papua New Guinea's provincial high schools. Applicants should be qualified and successful teachers of Social Science at secondary or tertiary level. Previous experience in curriculum development and especially distance education would be an advantage.

Lecturer/Senior Lecturer in Commerce Education – G6680/185
(Department of Post-Vocational Training, Commercial and Secretarial Studies)

This appointment commences in December 1985. An eighteen-month contract will be offered in the first instance, with the possibility of renewal. The successful applicant will be expected to develop a Commerce course for the Advanced Diploma in Teaching (Secondary) programme, course notes, preparing teaching manuals and audio-visual aids, paying special attention to the controlled use of English. The Advanced Diploma in Teaching (Secondary) program has been developed to upgrade the subject knowledge and professional skills of experienced teachers in Papua New Guinea's provincial high schools. It comprises a residential and distance education component. The first Commerce students are to be enrolled in December 1986 and the greater part of the course will need to have been developed by that time. Applicants should possess a degree in business studies or commerce, with a major in accountancy, post-graduate qualifications in education, successful teaching experience at the secondary or tertiary level, and most importantly, a demonstrated ability to develop new programs.

Lecturer/Senior Lecturer in Science Education – G5100/85
(Department of Science)

This position is available from January 1986. A three-year contract will be offered, with the possibility of renewal for a further three years. The successful applicant will be required to teach several Science courses within the Diploma in Teaching and Advanced Diploma in Teaching (Secondary) programs. Applicants should be qualified in Physics (and either Biology or Geology, and should have had a degree of successful teaching experience at secondary or tertiary level, preferably including teacher education experience in a developing country. The Science curriculum within the College is changing and provision will be made for appropriate in-service education. A keen interest in curriculum development will therefore be a definite advantage.

SALARIES: Senior Lecturer K21,265, Lecturer II/Senior Tutor II K19,405, Lecturer I/Senior Tutor I K17,555 per annum in PNG dollars.

OTHER CONDITIONS: Appointees are normally offered a contract for a three year appointment ending at the end of a semester. The gratuity is based on 24% of salary earned and is payable in instalments during each year and is taxed at a flat rate of 2%. In addition to the salaries quoted above, the main benefits include: support for approved research; rent-free accommodation; appointment and repatriation airfares for appointee and dependants; educational assistance allowances for cost of transporting personal effects to and from PNG; 6 weeks annual recreation leave with home airfares available after each 18 months of continuous service; generous education subsidies for children attending schools in PNG or overseas; salary continuation scheme to cover extended illness or disability. Applicants wishing to arrange secondment from their home institutions will be welcomed. The terms and conditions are under review. Applications will be treated as strictly confidential and should include a full curriculum vitae, a recent small photograph and the names and addresses of three referees, in order to expedite the appointment procedure, applicants are advised to ask their referees to send confidential reports of same to the University without waiting to be contacted. Applications should be forwarded to the Deputy Registrar (Staffing), University of Papua New Guinea, PO Box 320, University Post Office, Papua New Guinea, by 11 October 1985. Candidates in the UK should also send a copy of their application to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

(70549)

UNIVERSITY COLLEGE OF SWANSEA
Lecturer and 'New Blood' Lecturer

Applications are invited, from persons preferably not more than 35 years of age, for two vacancies of Lecturer in Computer Aided Engineering in the Department of Mechanical Engineering. *Applicants* should be well qualified in a relevant branch of engineering or applied science and have demonstrated a proven research and/or industrial capability. Experience in one of the following would be preferable: computer aided analysis; design decision making; computer integrated manufacture; artificial intelligence techniques and their application to design and manufacture.

The appointments, which will date from the soonest date that can be arranged, will be on the scale £7,818 - £15,522 per annum (under review), together with USS/IDPS benefits.

*Further particulars and applica*tion forms (2 copies) may be obtained from the Personnel Office, University College of Swansea, Singleton Park, Swansea SA2 8PP, to which office they should be returned by Friday, 18 October, 1985.

(72106)

Fellowships

Cambridge
Corpus Christi College

Applications are invited for up to

TWO RESEARCH FELLOWSHIPS

tenable for three years from 1 October 1985, to be held in any subject. The Fellowships are open to men and women graduates of any University who on 1 October 1985 will have completed not more than five years of full-time research.

A Research Fellow is entitled to the privileges of a Fellow, including a room or rooms, and some meals. Remuneration is currently under review but will be not less than the current stipend for a U.K. Assistant Lecturer.

Further details of the Fellowships and application forms may be obtained from the Tutor for Advanced Students, Corpus Christi College, Cambridge.

Completed application forms, together in each case with a statement of not more than 1,000 words outlining the applicant's present and proposed research, must be received in the College by 5.00 p.m. on 14 October 1985. Candidates must also arrange for testimonials to be sent directly to the College, to be received by the same date, by two referees familiar with their work.

Selected candidates will be invited during the last week of October to submit two copies of a dissertation or other written work by 7 November 1985. This work need not be in its final form but must provide evidence of outstanding originality and promise. (51848) H2

Polytechnics

The Polytechnic of North London

Appointment of

DIRECTOR

re-advertisement

A Director is required in January 1986.
The Polytechnic of North London is a major public sector institution with national and international responsibilities. It also has a particular commitment to the social and economic needs of the inner city.
This post offers complex challenges with positive opportunities.
The salary will be in accordance with the recommendations of the Burnham Committee and is at present £30,915 (inclusive of London Allowance).
Applications from candidates with experience in Education, Industry or Public service will be welcomed.
Further particulars can be obtained from the Personnel Officer,
The Polytechnic of North London,
Holloway Road, London N7 8DB.
Closing date for applications: 7 October 1985.

PNL is an equal opportunities employer.

Middlesex Polytechnic

Part-time Lecturers in Geography Planning and Development Studies

Required immediately, to teach for three to six hours a week on degree programmes staffed by the Polytechnic's School of Geography and Planning.

Candidates are expected to have appropriate academic and/or professional qualifications, and an ability to teach at degree level.

Write quoting ref A836A *for further information:* The Head of School of Geography and Planning, Middlesex Polytechnic, Queensway, Enfield, Middlesex EN3 4SF. (72040)

Colleges and Institutes of Technology

City of Salford
Salford College of Technology

Department of Art and Industrial Design

A suitably qualified person with honours degree and/or appropriate professional qualifications for the following post to be offered from September 1985 or as soon as possible thereafter.

PRINCIPAL LECTURER IN 3D DESIGN (EXHIBITION AND RETAIL DESIGN)

Salary in accordance with Burnham Scale, viz: Principal Lecturer £13,005 - £16,467 (under review) with starting salary dependent upon previous experience.

Further particulars and application forms may be obtained from the Principal, Salford College of Technology, Frederick Road, Salford M6 6PT. Tel: 061-736 6541, to whom completed forms should be returned without delay. (51908) H5

All advertisements are subject to the conditions of acceptance of Times Newspapers Ltd, copies of which are available on request.

Leicester Polytechnic
School of Industrial Design

COURSE LEADER IN FURNITURE DESIGN SL

Post No. 65

£11,175 - £14,061 p.a. (pay award pending)

Applications are invited from suitably qualified persons with experience of design practice or education who feel committed to the development of design education.

Application forms and further details from the Personnel Office, Leicester Polytechnic, PO Box 143, Leicester LE1 9BH.

Closing date 4 October 1985. (51927) H5

PLEASE MENTION THE T.H.E.S. when replying to advertisements

Polytechnics continued

The London Institute

Appointment of Head

Further applications are invited from candidates with the qualities necessary to head what will be a major and nationally significant educational development.

The London Institute will be a single collegiate institution comprising initially

The Camberwell School of Art and Crafts
The Central School of Art and Design
Chelsea School of Art
The College for the Distributive Trades
The London College of Fashion
The London College of Printing
St. Martin's School of Art

All of these have unique histories, established links with industry and the capital's cultural life, and substantial national and international reputations.

The London Institute will be a Burnham Group 12 establishment and the salary for the post, in accordance with the Burnham F.E. report, will be £30,915 (including £1,038 London allowance), pay award pending.

For further information and an application form write to the Education Officer, (EO/FHE/AFE), Inner London Education Authority, Room 549c, The County Hall, London SE1 7PB, or telephone Mr. K. Carter on 01-633 8878. The closing date for applications is 4 October 1985.

ilea Inner London Education Authority

ILEA IS AN EQUAL OPPORTUNITIES EMPLOYER.

Director
Bristol Polytechnic

Salary: £29877 per annum

Applications are invited for the above post. Bristol Polytechnic, a public sector institution of higher education within the County of Avon, has some 13,000 full-time, part-time and short-course students at post and sub-degree level. It has strong national and regional links with industry, commerce and the professions. As senior academic and principal officer of the Polytechnic, the Director is responsible for its academic operation and standards and for its general administration and management. The successful candidate must therefore have the proven ability to motivate and manage a large organisation and the experience in education, industry or the public service to provide convincing leadership in a period of educational development and advancing technology.

Further details may be obtained from the Clerk to the Governing Body, Bristol Polytechnic, Coldharbour Lane, Bristol BS16 1QY. Applications to be received by 11 October 1985.

Avon County Council is an equal opportunities employer.

Bristol Polytechnic

Newcastle upon Tyne Polytechnic

Faculty of Community and Social Studies

School of Behavioural Science and

Newcastle Health Authority

School of Nursing Continuing Nurse Education and Research Unit

Re-advertisement

LECTURER II
EXP 20/85

Applications invited from Registered Nurses who are also graduates preferably with research experience and a teaching qualification for this innovative venture between the Polytechnic and the School of Nursing.

Permanent post, full time Lecturer II appointment employed by the Polytechnic and jointly funded with Newcastle Health Authority.

Successful applicant will work jointly in the School of Behavioural Science and the Department of Continuing Nurse Education. Main responsibilities include developing and teaching the professional studies component of the B.Sc. (Hons) Health Studies (Applied Behavioural Science) degree; and contribution to courses within the Health Authority designed to up-date staff and enhance professional development of qualified nurses.

Post offers excellent opportunity to gain experience within the two institutions of education and to foster links between them.

Informal enquiries to Dr D.W. Watson, Head of School of Behavioural Science, Newcastle Polytechnic (Ext. 54644).

Burnham FE: LII £7,548 - £12,099 per annum. (pay award pending).

For further details and application forms please call our 24 hour telephone answering service (0632 325126) or write enclosing a foolscap sae to Miss Elsie Thorpe, Senior Clerk (Recruitment), Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne NE1 8ST. Closing

TRENT POLYTECHNIC
Central Administration

PUBLIC RELATIONS OFFICER

Salary: £9,975 – £10,638

To maintain a public relations service for one of the country's largest and most successful Polytechnics, including the production of a regular internal newsletter, liaison with Press and media, organising course advertisements, exhibitions and advising colleagues on course marketing and other promotional work.

The Public Relations Officer is assisted by a part time secretary. The services of the Polytechnic's Audio Visual Resources Unit, Reprographics Unit and Graphic Design are readily available. The Polytechnic uses a national advertising agency.

The ideal applicant will have in-depth experience of print production and of working with journalists. A background in public relations, marketing or advertising would be advantageous as would an appropriate qualification.

Further details and forms of application are available from the Staff Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. Closing date: 4th October 1985.

North Staffordshire Polytechnic
Faculty of Computing, Engineering and Science

Department of Physics

PRINCIPAL LECTURER/ SENIOR LECTURER/ LECTURER II

Applications are invited for a post in the Department of Physics which will be at one of the above grades dependent on the experience of the successful candidate; if the appointment is made at Principal Lecturer level, the possibility of a Readership exists for a suitable candidate.

Candidates should preferably be honours graduates in Physics with research and/or industrial experience. The teaching and research fields of particular interest are solar fire, solid-state physics, micro-electronics and opto-electronics, but applicants with experience in other areas will also be considered.

Department of Chemistry and Biology

SENIOR LECTURERS/ LECTURERS II IN CHEMISTRY

Applications are invited for the above posts from candidates who should have a Ph.D. degree and post-doctoral experience have a keen interest in teaching and possess a good research record.

A knowledge of spectroscopic and/or analytical methods and the application of computing will be an advantage.

Salary scales: Principal Lecturer £15,093 - £16,467; Senior Lecturer £11,175 - £13,158 (Bar) - £14,061; Lecturer II £7,548 - £12,099 (Pay award pending).

Application form and further particulars for all the above posts available from The Personnel Section, North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DE.

Closing Date for completed applications 7th October 1985. (51825) H5

Middlesex Polytechnic

LECTURER II/ SENIOR LECTURER IN ENGLISH FOR ACADEMIC PURPOSES
(English Language and Study Skills)

£8,586 - £15,099 p.a. inc.

A three-year contract appointment, commencing January 1986 and developing EFL and English language work courses at Polytechnic, particularly for non-native English speaking students from overseas.

Graduate status, professional qualifications in teaching of EFL and experience in teaching overseas and overseas students in the UK and overseas are expected.

Write enclosing s.a.e. (size, 9in. X 4in.) and quoting ref. A649B for further details and an application form: Personnel Officer, Middlesex Polytechnic, 114 Chase Side, Enfield, Middlesex EN2 6LL. Closing

Polytechnics continued

PORTSMOUTH POLYTECHNIC

Applications are invited for the following posts:

Salary scale: Lecturer/Senior Lecturer: £7,548 – £14,061 per annum (under review)

SCHOOL OF INFORMATION SCIENCE
Reference No: 100

Lecturer/Senior Lecturer in Information Science

to lecture at undergraduate and postgraduate level in computing and information science. Applicants should be Honours graduates with active research interests and/or recent industrial experience in computing, business systems or information Technology, particularly in the areas of Software Engineering, Intelligent Knowledge Based and Tutoring Systems, and the Man-Machine Interface. An interest in the organisation and presentation of short-courses for industry would be an advantage.

BUSINESS SCHOOL

Two Lecturer II/Senior Lecturers in Accounting
Reference No. 101

Required as members of a team teaching on degree, diploma and a small number of post-experience courses. Applicants should be graduates, well qualified in accounting and ideally would have experience of modern computerised information systems. A variety of teaching is available for both positions, but one vacancy incorporates some specialisation in management accounting. Applicants able to teach the audit of computerised systems, and those who are prepared to contribute to the further development of the Department's use of information technology for teaching and learning, are encouraged to apply.

Lecturer II/Senior Lecturer in Business Law
Reference No. 102

Graduate required to join a small team teaching business law on a wide range of degree and diploma courses. Expertise in company law is sought together with an interest in employment law. Candidates should be well qualified, preferably with a professional qualification or a higher degree.

Lecturer II/Senior Lecturer in Organisational Behaviour Reference No. 103

Graduates required to join a team teaching behavioural and organisational studies on several degree and diploma courses in business studies, accounting and hotel management. Applicants must have relevant post-graduate qualifications and some preference may be given to those with a subsidiary interest in industrial relations.

Lecturer II/Senior Lecturer in Organisation and Management Reference No. 104

Graduates required who can contribute to general management subjects on courses serviced by the Business School in the Science and Engineering Faculties. There will also be the requirement to participate in business planning courses on programmes in the School. Some preference may be given to candidates with an M.B.A.

DEPARTMENT OF ECONOMICS AND ECONOMIC HISTORY

Two Lecturer II/Senior Lecturers in Economics
Reference No. 105

Candidates should normally have a relevant postgraduate qualification. One post will incorporate teaching common on BA Hotel & Catering Management and the other include the teaching of quantitative methods and computing applications, but well qualified candidates with other specialism are encouraged to apply.

SCHOOL OF EDUCATIONAL STUDIES

Lecturer II/Senior Lecturer Reference No. 106

for appointment from 1 January 1986 (earlier by Arrangement), initially for two years but with the possibility of transfer to a permanent post.

A degree and qualified teacher status or equivalent qualifications, and experience of teaching in the further education sector are sought. Though the appointment is being made principally to teach on the two-year part-time in-service Certificate in Education for teachers in Further Education Services course, contributions to other courses and activities are expected.

DEPARTMENT OF PHYSICS

Three Lecturer II/Senior Lecturers in Electronics, Opto-Electronics, Microwaves & Communication Theory Reference No. 107

required to teach largely within the BSc Applied Physics, BSc Physics and HND in Applied Physics and possibly the MSc in Microwave Solid State Physics. Candidates are sought with good honours degrees preferably with post graduate industrial experience. Specialisation and a research interest in one of Electronics, Opto-electronics, Microwaves, Communication Theory or Solid State Physics would be an advantage but ability and enthusiasm in other areas would be acceptable.

SCHOOL OF SOCIAL AND HISTORICAL STUDIES

Temporary Lecturer II in Sociology Reference No. 108

required for one year, temporary lectureship in sociology within the School to replace a member of staff on study leave. The major responsibility will be to teach social statistics and research methods to first year social science students on degrees in Police, Sociology and Social Administration. The successful candidate will also be expected to contribute to introductory courses in sociology/social problems. The appointment will commence as soon as possible. The salary for this post up to a maximum of £10,521.00 per annum (under review) and the appointment will commence as soon as possible.

Applicants should apply for post reference No. 108 by letter enclosing a c.v. not later than 23rd September.

Application forms and further particulars from Personnel Office, Nuffield Centre, St. Michaels Road, Portsmouth. Tel: 0705 825451.

CLOSING DATE FOR APPLICATIONS: 30th SEPTEMBER (70518)

SUNDERLAND POLYTECHNIC
DEPARTMENT OF ELECTRICAL, ELECTRONIC AND CONTROL ENGINEERING
and
DEPARTMENT OF MECHANICAL ENGINEERING

READERS

The Polytechnic seeks to appoint a Reader in each of the above two Departments to lead, initiate, and co-ordinate research. Specific areas of interest are:

(1) Microelectronics, VLSI Design, Microprocessor and Software Engineering.
(2) Engineering Fluid Flow and Heat Transfer.

Candidates for appointment to these posts should have a proven record of scholarship in their field. A successful record of collaboration with industry and obtaining external funding would be an advantage.

Salary Scale: £13,095–£16,467 (under review)

An application form and further particulars may be obtained from the Personnel Officer, Sunderland Polytechnic, Langham Tower, Ryhope Road, Sunderland SR2 7EE or telephone (0783) 76331, Ext. 11.

Closing date: 4th October 1985. (72103)

HONG KONG BAPTIST COLLEGE

The College is fully funded by the Hong Kong Government through the University and Polytechnic Grants Committee, and offers 3-year full-time, post-Advanced Level Honours Diploma courses in arts, business, science, and social sciences. From 1985 on, new degree courses will be introduced gradually to replace the Diploma courses. A five-year campus re-development has been initiated in 1985 to meet the requirements of a degree-granting institution expanding to 3,000 full-time students and a further 1,500 full-time equivalent students on part-time courses in the Division of Continuing Education.

Applications are now invited for the following post tenable from April or July/August 1986.

Dean of Business Faculty

Candidates should be holders of a Ph.D or a MBA Degree with (a) substantial teaching and administrative experience at a recognised institution of higher learning; (b) a distinguished record of scholarly activities including research, publications, consultancy and professional involvement in management/economics areas. Previous experience as Head of an academic department would be a distinct advantage. The Dean of Faculty of Business reports to the Academic Vice President and is responsible for ensuring that the academic policies are implemented effectively in fulfillment of the College's educational goals and for upholding the academic standards of the business programmes offered by the Faculty. Strong leadership is expected in order to coordinate the operation of the 4 departments within the Faculty, stimulate academic development and establish links with the business community. It is hoped to launch the honours degree in Business Studies in September 1987, depending on the advice given by the U.K. Council for National Academic Awards.

Salary Scale: Fixed scale, but not less than HK$26,885 per month, subject to annual cost of living adjustment.

Terms and Conditions of Service: The initial appointment will be made on fixed-term contract of two years. At the end of which a gratuity equal to 25% of basic salary earned over the entire contract period will be given. The appointment may then be renewed (usually on superannuable terms). Benefits include long leave (about 3 months after completing 21 months of service); housing provision, medical & dental benefits for appointee and family, and where appropriate children's education allowances, air-passages and baggage allowance.

Application Procedure: Application forms and further information are obtainable from Personnel Office, Hong Kong Baptist College, 224 Waterloo Road, Kowloon, Hong Kong. Completed forms, credential and reference letters should reach the Personnel Secretary by 31st October, 1985. All applications will be kept in strict confidence. (72101)

Head of department/ Professorial posts in

1) Accounting and Finance
2) Business and Management Studies
3) Physical Sciences
4) Surveying
5) Civil and Structural Engineering

£17,397 - £19,170 pay award pending

Applications are invited for the above posts from academically and professionally qualified candidates. The Polytechnic Council would also be pleased to hear of suitable candidates from third parties.

Further particulars and application forms may be obtained from the Staff Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. (Telephone 0602 418248 Ext. 2069). Closing date for receipt of applications: 30th September 1985.

Nottinghamshire County Council is an Equal Opportunities Employer. (72107)

TRENT POLYTECHNIC NOTTINGHAM

LECTURER 'A' IN COMPUTING & STATISTICS
£8,688–£13,716 (L11/SL equivalent)

A graduate with computing expertise is required to develop the use of computers, Information Technology and Statistics in the College's Teaching programmes, Closing date for receipt of applications: 4th October, 1985.

Further particulars and application forms are available from the Secretary and Treasurer at the address below. (72102)

THE QUEEN'S COLLEGE GLASGOW
1 Park Drive, Glasgow. G3 6LP.
Tel. 041-334 8141.
A Scottish Central Institution.

Leicester Polytechnic
School of Graphic Design

PRINCIPAL LECTURERS (2 POSTS)
Post No 212

COURSE LEADER B.A. GRAPHIC DESIGN

Applications are invited from candidates who have interests in Graphic Design and Educational Management.

Post No 542

COURSE LEADER M.A. GRAPHIC DESIGN

Experienced information designer required to take charge of M.A. Course. This is the only masters level course in the country specialising in information design.

Salary £13,095 - £16,467 (Pay Award Pending).

Application forms and further details for both posts are available from the address below.

PART TIME EXPERIENCED ILLUSTRATOR

Required to take charge of illustration studies within the B.A. Graphics Course. It is essential that applicants have a broad range of professional experience.

Rate of pay £12.70 per hour.

Please apply in writing enclosing a full curriculum vitae to the Personnel Office, Leicester Polytechnic, P.O. Box 143, Leicester LE1 9BH.

Closing date for all posts: 6th October, 1985. (51834) H5

Middlesex Polytechnic

LECTURER II/ SENIOR LECTURER IN SOCIAL WORK

£8,586 - £15,099 p.a. inc.

To teach social work skills and methods and other areas within the Polytechnic's well-established School of Social Work. The School offers courses leading to an honours degree in social science, a postgraduate diploma and a CQSW-validated certificate.

Applicants should be graduates with at least two years of post-qualification social work practice. Experience and qualifications in the field of mental health would be an advantage.

Informal inquiries: Professor Edmund Penning-Rowsell, Dean of the Faculty of Social Science, or Mrs Ann Loxley, Acting Head, School of Social Work, Middlesex Polytechnic, Queensway, Enfield, Middlesex EN3 4SF. 01-804 8131.

Write enclosing s.a.e. (min. 9in. X 4in.) and quoting ref A650A for further details and *an application form:* Personnel Department, Middlesex Polytechnic, 114 Chase Side, London N14 5PN. Closing date 30 September. (51821) H5

Napier College
A Scottish Central Institution

FINANCE OFFICER

Salary: £13,671–£15,123

To be responsible for the management and control of the College's budget; the preparation of final accounts; and the supervision of staff in the Salaries and Wages, Financial Accounting and Management Accounting Sections.

Applicants must hold a recognised professional accounting qualification and have had substantial experience of financial management, preferably within Higher Education.

Application Forms and further particulars available from: Administrative Officer (Personnel), Napier College, 219 Colinton Road, Edinburgh EH14 1DJ. Tel. (031) 447 7070 x674. Closing Date: 8 October 1985. H5

The Polytechnic of North London

Department of Mathematics, Statistics & Computing

LECTURER II IN STATISTICS

Applications are invited for the post of statistician/operational researcher with a strong theoretical bias but a practical inclination. The major expertise required is Time Series and Forecasting (possibly Econometrics). An interest in Design and/or Operational Research would be an advantageous.

Minimum Qualifications: Good honours degree in a relevant discipline and preferably with a postgraduate qualification in statistics. A recently qualified graduate would be considered.

Salary: £7,548 - £12,099 plus London Allowance £1,038.

Application form and further information, are obtainable from the Personnel Officer, The Polytechnic of North London, Holloway Road, London N7. Tel: 607 2789.

Closing date for the receipt of applications is 14 days from the appearance of this advertisement.

The Polytechnic of North London is an Equal Opportunities Employer. (51845) H3

Polytechnic of Central London
Faculty of Languages

LII/SL IN ITALIAN

The Faculty of Languages wishes to appoint as soon as possible and in any case no later than January 1st 1986, a well-qualified lecturer to teach Italian language from beginners' to degree level on its BA/4 Hons Modern Language courses (CNAA).

Applicants for this post should have recent research interests in language teaching methodology and an ability to contribute to the teaching of Italian politics, economics, literature or specialised translation will be particularly welcome.

Candidates should possess native or near-native competence in Italian.

Further details and application forms are available from the Personnel Office, PCL, 309 Regent St., London W1R 8AL.

Closing date: 7 October 1985.

PCL is an Equal Opportunities Employer. (51837) H5

Kingston Polytechnic
Faculty of Education

School of Music

LECTURER II/ SENIOR LECTURER IN MUSIC

Applications are invited from practical and school-based musicians for the above post from January 1986.

Candidates should have substantial school teaching experience with a keen interest in ethnic music, and should preferably possess a higher degree in Music or Music Education. The appointee will be expected to teach mainly on the PGCE (11 - 16) and B.Ed. Hons. courses.

Salary range £8,226 - £14,739 including London allowance (pay award pending).

Further particulars from Personnel Officer, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames KT1 2EE. Tel: 01-549 1366 Ext. 287. Closing date 2 October 1985. (51833) H3

Personal

LOANS TO SALARIED WOMEN from £50 upwards same day. Salaried Women's Postal Loans Ltd., 175 Regent St., W1. For written quote apply 01-734 1784. 1111103

IMMEDIATE ADVANCES £100 to £50,000. Written terms on request. Regional Trust Ltd., 91 Dover Street, Piccadilly, London W1A 4AT. Phone 01-491 2934 or 498 5416 L000

100% MORTGAGES 3½ X Income. Also available: Secured Loans £1,000 to £50,000 in 10 days. Written quotes available. Hometown 01-445 5451. (40053)L000

REMINDER
COPY FOR CLASSIFIED ADVERTISEMENTS IN THE T.H.E.S. SHOULD ARRIVE NOT LATER THAN 10AM MONDAY PRECEDING PUBLICATION

Colleges of Further Education

Somerset

SOMERSET COLLEGE OF ARTS AND TECHNOLOGY, TAUNTON.

I: **DEPARTMENT OF BUILDING AND SURVEYING**

HEAD OF DEPARTMENT OF BUILDING AND SURVEYING (GRADE III)

Applicants must have had relevant commercial/industrial experience and hold a degree and/or appropriate professional qualifications. Experience in further or higher education is essential with particular reference to development of courses up to BTEC Higher National level as well as knowledge of YTS, CITB courses and other aspects of "the new FE".

II: **DEPARTMENT OF ART AND DESIGN**

Applications are invited for the following post to be filled as from 1 January 1986.

PRINCIPAL LECTURER IN GRAPHIC DESIGN

A new post of Director of Studies for Graphic Design through the Department. The post calls for substantial teaching experience to at least final year HND level as well as academic and professional leadership and management of a high order. It involves co-ordinating the work of staff at all levels and across a range of related studies in BTEC Diploma and HND courses as well as in other specialist departments in the College.

Further particulars and application form from Chief Administrative Officer, Somerset College of Arts and Technology, Wellington Road, Taunton, Somerset TA1 5AX. SAE please. Closing date 4 October 1985. (70645)

vacancy CLOSING DATE: 30th SEPTEMBER 1985

HEAD OF SCHOOL OF BUSINESS & PROFESSIONAL STUDIES

(Head of Department Grade VI) ***Post Ref: BS/0053***

This is a key post in the College's management structure; the successful applicant will be a member of the College executive and will be responsible for the operation of a School comprising four Departments with more than 100 full-time teaching staff and 19 full-time non-teaching staff, serving the needs of 3,400 students.

Applicants should have:

a) a proven record of successful management within the further or higher education service;
b) experience of introducing curriculum change;
c) an awareness of recent developments in course provision which affect the work of the School.

Appropriate industrial or commercial experience would be an advantage.

Salary: £17,397 – £19,170 (award pending)

For further details and an application form, please contact:
Mr. A.W. Hodgson
Staffing Officer
Bradford & Ilkley Community College
Great Horton Road
Bradford BD7 1AY

WE ARE AN EQUAL OPPORTUNITIES EMPLOYER.

Bradford&Ilkley COMMUNITY COLLEGE

CAMBRIDGESHIRE

CAMBRIDGESHIRE
COLLEGE OF ARTS AND TECHNOLOGY

PRINCIPAL

(Group 9)

APPOINTMENT FROM MAY 1 1986

Details from Chief Education Officer (DS/CCAT) Shire Hall, Cambridge, or Tel. Cambridge 317939

Closing Date 4th October 1985. (7656)

EQUAL OPPORTUNITY EMPLOYER

Colleges and Departments of Art

PART-TIME LECTURER IN PSYCHOLOGY IN EDUCATION

required immediately (28+) The College is looking for someone who is flexible, imaginative, interested in teaching areas surrounding Education/Child Psychology, who has a real interest in the Arts and who enjoys teaching students of 17+. Applicants should be well qualified academically, able to assist present lecturer with a view to taking over completely from January 1986.

Applications in writing to Ms Susan Danby, Principal.

The College of the Royal Academy of Dancing, 48 Vicarage Crescent, London SW11 3LT.

Please enclose a full Curriculum Vitae. (70638)

Kent County Council
Maidstone College of Art

HEAD OF DEPARTMENT OF GRAPHIC DESIGN

Burnham Grade IV

Applications are invited for appointment to this important post within the College. The Head of Graphic Design will be responsible for the management of the Department and, in conjunction with the Course Leader, for the conduct of the CNAA, B.A. (Hons) course in Graphic Design.

S/he will join the Head of Department of Fine Art and Foundation Studies and other senior members of staff in advising the Principal on the overall management and development of the college and the formulation of its policies.

Application forms and further particulars of the post are available from the Chief Administrative Officer, Maidstone College of Art, Oakwood Park, Oakwood Road, Maidstone, Kent ME16 8AG. Tel: (0622) 57286, Ext. 28.

Re-advertisement. Previous short-listed candidates will automatically be reconsidered. (5190) H10

Colleges and Institutes of Higher Education

County of Avon
BATH COLLEGE OF HIGHER EDUCATION
(Incorporating Bath Academy of Art)
Faculty of Art and Music

COURSE DIRECTOR BA (Hons) GRAPHIC DESIGN

Applications are invited from suitably qualified and experienced candidates to take up the above post on 1 January 1986.

The Graphic Design course is validated by the CNAA.

The appointment will be at the Principal Lecturer level.
Salary: £13,095 – £16,467 (Pay award under review.)
Faculty of Home Economics and Science.

Lecturer II/Senior Lecturer in Management/Marketing/Economics.

Required for January 1986 to join a lively, progressive faculty and contribute to multidisciplinary HOME ECONOMICS B.Sc (Hons) and B.Ed. (Hons) courses.

Applicants should have a higher degree and/or industrial experience. Responsibilities will include teaching, course planning and a contribution to consultancy work.

Salary: £7,548 – £14,061 (pay award under review).

Further details from The Director, Bath College of Higher Education, Newton Park, Bath BA2 9BN (Tel: Saltford 3701).

Applications to be received as soon as possible and not later than 9 October 1985.

County of Avon is an equal opportunities employer. (70544)

SGIHE SOUTH GLAMORGAN COUNTY COUNCIL

SOUTH GLAMORGAN INSTITUTE OF HIGHER EDUCATION · CARDIFF

FACULTY OF TECHNOLOGY

Applications are invited for the post of

HEAD OF DEPARTMENT OF CONSTRUCTION AND ENVIRONMENTAL STUDIES (GRADE 4) (RE-ADVERTISEMENT)

Applications are invited for the above post from well qualified and experienced persons in an appropriate discipline. The person appointed will be expected to contribute to the development and management of both the Faculty and the Department which offers courses ranging from YTS to an Honours Degree.

Salary Scale: HOD4 £14,799–£16,578 (under review).

Further particulars and application forms may be obtained from The Personnel Officer, South Glamorgan Institute of Higher Education, Cyncoed Centre, Cyncoed Road, Cardiff CF2 6XD (Telephone No. 0222 551111). Completed applications should be returned within fourteen days of the publication of this advertisement. (72104)

Holidays and Accommodation

DRISCOLL HOUSE HOTEL, 900 single rooms, £48 per week partial board. Apply 171

PLEASE MENTION THE T.H.E.S. WHEN REPLYING TO

ESSEX

INSTITUTE OF HIGHER EDUCATION

The Essex Institute of Higher Education – formerly the Chelmer Institute – offers post-graduate degree and professional courses, with an emphasis on partnership with industry, commerce and the professions. There are sites in Brentwood, Chelmsford and Danbury, the latter housing the new Danbury Park Management Centre, and the Institute co-operates with the County Council in the operation of the Essex Small Business Centre.

HEAD OF SCHOOL OF EDUCATION

***Grade VI £17,397-£19,170 p.a. plus £264 London Weighting**

A Head who can build on recent success and exploit the excellent potential of the School is sought. The successful applicant will lead a well-qualified experienced and enthusiastic staff across the range of Initial (Primary) and In-service school education, and work closely with other Heads, notably those of the Essex FE Teachers' Centre and the Danbury Management Centre. The strengthening of links with local authorities, industry and commerce will also be expected, with particular regard to taking advantage of developments in pre-vocational and 16-19 education, together with the encouragement of research activities. A major aspect of the role will be involvement in national education policies and debates affecting teacher education. This post is based at the Brentwood Site.

HEAD OF SCHOOL OF BUILT ENVIRONMENT

***Grade VI £17,397-£19,170 p.a.**

Senior management experience in industry, higher education or public sector organisations, together with a keen sense of vision – to maximise the impact of the School on the region – are the key requirements for this post. The School is currently being created through the amalgamation of the existing Schools of Construction and Surveying and the School of Planning. The successful applicant will also have a commitment to developing research and consultancy, be expected to represent us on national bodies and have proven links with employers and sound teaching experience at first degree or post-graduate level.

HEAD OF DIVISION – COMPUTER APPLICATIONS SERVICES

***Principal Lecturer £13,095-£16,467 (bar at £14,580)**

This post is available for a fixed term of two and a half years.

The School of Computing provides academic courses in computing and has a significant support role across the Institute and other educational establishments; the Division is involved in the creation of specific learning software to support all areas of the Institute's work. The position calls for teaching/lecturing experience, significant programming skills and the confidence to manage a team of educational programmers/advisers.

PRINCIPAL LECTURER OR SENIOR LECTURER: COURSE TUTOR FOR PGCE

***Principal Lecturer £13,095-£16,467 (bar at £14,580)**
***Senior Lecturer £11,175-£14,061 (bar at £13,128) plus £264 p.a. London Weighting**

The Institute is developing a primary PGCE to start in 1987 and requires a Course Tutor to lead this development and subsequently manage the course. This senior post will be based in the new School of Education at Brentwood which is being formed from the three existing Schools of Initial and In-Service Education and Modular Degree Studies. Good Primary experience is therefore sought, together with a knowledge of PGCE developments and the competence to lead an experienced group of tutors. Experience of CNAA validation procedures and of planning a significant part in CNAA submissions will be an advantage, as will possession of a higher degree and/or published relevant research in education.

An appointment will be made at either Principal Lecturer or Senior Lecturer level depending on the experience of the successful candidate. This post is based at the Brentwood site.

PRINCIPAL LECTURER IN LAW

***£13,095-£16,467 (bar at £14,580)**

The successful applicant will be expected to play a major part in the academic and administrative organisation of the School and will be considered for the role of Course Leader for the full-time LL.B. (Hons) degree. The post offers an exciting opportunity within a large, established Law School.

STUDENT ADVISER

(Scale 3) £6,399-£6,900 plus £192 London Weighting

An enthusiastic graduate is required to work as a member of an integrated Students Services team. The person appointed will be based on the Brentwood site but have Institute-wide duties. Experience in a Students Services setting is desirable but not essential.

Application forms and further details from the Personnel Officer, Essex Institute of Higher Education, Victoria Road South, Chelmsford, Essex CM1 1LL.

Closing date for all posts: 4th October, 1985.

Colleges and Institutes of Higher Education continued

THE CHURCH OF ENGLAND COLLEGE OF EDUCATION AT CHELTENHAM

Invites applications from suitably qualified graduates for the post of

PRINCIPAL OF THE COLLEGE OF ST PAUL AND ST MARY

The position will become vacant on the retirement of Mr G D Barnes BA, MPhil, FRSA, on 31 August 1986. Details may be obtained from:

The Clerk of the Council, College of St Paul and St Mary, The Park, Cheltenham, Glos. GL50 2RH. Tel: Cheltenham 513836 Ext 8 to whom applications should be made by 5 October 1985. (70577)

College of St. Mark & St. John

The following appointment is required for January 1986:

RECREATION STUDIES (TOURISM) LII/ Senior Lecturer

This is a key post in the development of the College's Recreation and Community programme. Applicants should have a broad knowledge of the development of Tourism and practical experience in a commercial planning situation would be an advantage. It is intended to offer the post in the LII/SL range, but there is a possibility of enhancing it to PL level providing the applicant can develop the research and consultancy aspect of the College's work in this field.

Application forms and further details may be obtained from the Principal's Office, College of St. Mark and St. John, Derford Road, Plymouth, PL6 8BH. Tel: Plymouth 777188 ext. 219. Closing date 1st October 1985.

Chester College of Higher Education

Department of Mathematics and Computer Studies

LECTURER II/ SENIOR LECTURER IN COMPUTER STUDIES TWO POSTS

Applications are invited for two lecturing posts in Computer Studies, to teach the subject in courses for B.A., B.Ed. and Diploma in Computing from January 1986.

Post 1 - Candidates should hold a degree in Computer Studies or a related discipline and be a specialist in teaching PASCAL. Commercial or industrial experience in computer would be an advantage.

Post 2 - Candidates should hold a degree and have current substantial experience in the use of microcomputers in Education.

The appointments will be made at Lecturer II (£7,548 - £10,098) or Senior Lecturer (£11,175 - £14,061) level (award pending) appropriate to qualifications and experience.

Further details available from the Principal, Chester College, Cheyney Road, Chester CH1 4BJ, to whom applications should be submitted by 4th October 1985.

Dorset Institute of Higher Education
Dorset County Council

Wallisdown Centre

TECHNICIAN (CATERING SCIENCE)

A new post within the Department of Catering and Hotel Administration to provide additional technical support to teaching activities in the area of catering science.

If you have experience of laboratory work in support of teaching activities and possess academic qualifications in the biological sciences or hold a degree in a scientific discipline, then this may be the job you have been looking for.

Salary will be within Scale 5 - £6,234 to £6,756. (A qualification allowance may also be payable).

Application forms returnable by 2 October and full details from the Chief Administrative Officer, Dorset Institute of Higher Education, Wallisdown Road, Poole, Dorset BH12 5BB. Please quote ref: ES8462X.

King Alfred's College Winchester

LECTURER IN RELIGIOUS STUDIES WITH PROFESSIONAL STUDIES

Applications are invited from well qualified graduates for a lectureship in Religious Studies with Professional Studies. The successful candidate will have expertise in the area of World Religions and/or Philosophy of Religion, and will also contribute to professional courses dealing with broader philosophical issues in Teacher Education. Applicants will preferably have recent Primary/Middle School experience. The post is to be filled from 1st January 1986.

A higher degree or recent research in an appropriate field will be an advantage.

The college offers a programme of CNAA validated BA and BEd degrees, and Dip HE, PCGE and a series of in-service awards. The successful applicant will contribute to the areas of both initial and in-service teacher training.

Salary: Lecturer II/Senior Lecturer: £7,548 to £14,061 (under review).

Further particulars from: The Principal, King Alfred's College, Winchester SO22 4NL, to whom applications should be sent by 3rd October 1985. H8

La Sainte Union College of Higher Education
The Avenue, Southampton SO9 5HB
Tel: (0703) 228761

LECTURER II IN HISTORY

A three year appointment from January 1986 for a specialist in modern British and West European history with responsibilities in the academic and professional areas of B.A. and B.Ed. courses.

Further details from the Principal's Secretary.

Applications to the Principal by 4 October 1985. (51846) H8

Colleges of Further Education continued

Norfolk Norfolk College of Arts and Technology, Tennyson Avenue, King's Lynn.

PRINCIPAL LECTURER IN ENGINEERING

Required for January 1986 to have a major role in courses and curriculum development in mechanical and/or electrical/electronic engineering.

Applicants should be graduates or equivalent with teaching and administrative experience. Relevant commercial/industrial experience would be an advantage.

Salary scale £15,936 to £14,586 (under review).

Application forms and full details available from the chief administrative officer at the college on receipt of request with stamp.

Closing date for applications 4th October 1985. H7

Administration

Department of Education and Science

HM INSPECTORS OF SCHOOLS

English as a second language (Reference 15/85)

Applications are invited from men and women, preferably aged between 35 and 45, for appointment in England as HM Inspectors. HMI inspect educational institutions as part of both general and specialist assignments and provide advice to the Department and throughout the education system.

Applicants will be expected to have had substantial teaching experience and involvement in developing methods and approaches to teaching English as a second language within the school curriculum and in the classroom.

They should also have recent experience of working in this country in or with schools serving multi-ethnic populations.

Starting salary for all posts is within the range £17,000 – £22,900. Relocation expenses of up to £5,000 may be payable.

Application forms (to be returned not later than 30 September 1985) and further information may be obtained from Mrs S Willis, Department of Education and Science, 39 York Road, London SE1 7PH. Telephone: 01-934 0798/0799/0800.

The Civil Service is an equal opportunity employer. (72052)

Adult Education

Re-advertisement

Knutson Hall Residential College for Adult Education

Assistant Principal

Applications are invited from persons with appropriate qualifications and successful experience in the field of adult education for the currently vacant post of Assistant Principal.

Salary: £10,761

Application forms and further details are available from Mrs Jean Long MA, Principal, Knutson Hall Residential College for Adult Education, Irchester, Wellingborough, Northants NN9 7EU (SAE please) to whom they should be returned by Monday, 7th October 1985. (72108)

Northamptonshire

Independent Colleges

College of Occupational Therapists

Educational Adviser

Applications are invited from occupational therapists for a new post of Educational Adviser to the College of Occupational Therapists.

Responsibilities centre on:

- Stimulation, formulation and development of educational policies, in cooperation with the Council and the Education Board of the College of Occupational Therapists.
- Liaison and communication with occupational therapy training schools and allied educational institutions and organisations.
- As Secretary of the Education Board, the Adviser will head a small staff. Administrative experience would therefore be an advantage.

The successful applicant will have enthusiasm, extensive experience in education and knowledge of the practice of occupational therapy.

The post will be based in London for three years in the first instance and will attract a salary of not less than £15,000 p.a.

Further particulars and a job description are available from The Secretary, College of Occupational Therapists, 20 Rede Place, Bayswater, London W2 4TU. Tel: 01-229 9738/9. Applications with names and addresses of two referees to the Secretary by no later than 4th October 1985.

London School of Accountancy

Full Time and Part Time Lecturers

Openings are immediately available for full and part time lecturers to join our lecturing team on professional accountancy courses. Subject areas to be covered include Financial Management, Financial Accounting, Auditing, Computer Studies, Law and Economics. We require lecturers with good experience, a sense of humour and a dedication to achieve and improve on our excellent examination results.

A thorough knowledge of the subjects in the ACCA and AAT syllabuses is essential. Salary up to £16,500 p.a. free life insurance and 6 weeks holiday p.a.
Part time lecturers' fees in region of £100 per day.

Trainee Lecturers

Trainee lecturers are also required to assist with the running of courses. Graduates with degrees which include subjects relevant to the syllabuses of ACCA and AAT without any previous teaching experience are required, to work with our lecturers. Salary from £7,500 per annum with regular merit reviews.

Application with full CV and recent photograph to: N.L. Keen FCA, Director of Studies, the London School of Accountancy, 17 Longford Street, London NW1 3PX.

HABERDASHERS' MONMOUTH SCHOOL FOR GIRLS

APPOINTMENT OF HEAD

The school is an independent day and boarding school, with an established record of academic excellence.

Applications are invited for the post of Head which will fall vacant on September 1st 1986. The school has approximately 600 girls aged 7–18 years and is endowed and administered by the Worshipful Company of Haberdashers.

Further details may be obtained from the Bursar, Haberdashers' Monmouth School for Girls, Hereford Road, Monmouth, Gwent NP5 3XT, the whom applications should be sent by October 7th, 1985. (6202/6)

Wesley College Westbury-on-Tryn, Bristol

The Methodist Theological College hopes to appoint a

TUTOR IN HUMAN SCIENCES

(particularly counselling, group-work, pastoral psychology). The appointment is to begin on 1st September 1986. Applications are invited from suitably qualified persons. The invitation is not limited to Methodists, nor to the ordained.

For further details and application form write to The Secretary of the Ministerial Training Committee, c/o Wesley College, Ranbury Road, Westbury-on-Tryn, Bristol BS10 7QD. The closing date for applications is October 25th. (51830) H9

REMINDER

COPY FOR CLASSIFIED ADVERTISEMENTS IN

THE THES

SHOULD ARRIVE NOT LATER THAN

10AM MONDAY PRECEEDING PUBLICATION

Courses

University of London
GOLDSMITHS' COLLEGE

Research Degrees

The college's Postgraduate Prospectus contains details of research in the following subjects, available for entry to the degrees of MPhil and PhD in October 1985:

Arts and Social Studies
Art and Design, Communication Studies, Drama, Education, English Literature, French, Geography, German, History, Music, Psychology, Social Anthropology, Social Administration, Sociology.

Sciences
Biological Sciences, Chemistry, Geology, Mathematics, Statistics.

All degrees are available by either full-time or part-time study. Normal entrance requirements include at least a 2nd class first degree (in some cases an upper second is specified).

Full details and application forms (please state courses) are available from the Admissions Officer, University of London, Goldsmith's College, London SE14 6NW (01-692 7171). (70537)

Research and Studentships

COORDINATOR

Research Programme on 15–19 Age Group

The Education and Human Development Committee of the Economic and Social Research Council invite applications for the post of *Co-ordinator for a major programme of research* being launched on social and psychological developing during late adolescence and young adulthood. The programme will be made up of three experiential longitudinal studies (to begin in the Summer of 1986).

The Co-ordinator's responsibilities will include: planning the initiative; co-ordinating the work of the teams; ensuring the development of the programme of research; and dissemination.

Candidates should have extensive post-doctoral experience of research in this field and will already hold an academic post. It is anticipated that 40% of their time would be devoted to the co-ordinator's role. ESRC will reimburse the home institution for replacement costs and the co-ordinator will retain his/her normal salary. A budget for secretarial support, travel and consultancies will be available.

The appointment is from January 1986 for a period of 5 years.

For further details contact:

Hazel Beckett, ESRC, 1 Temple Avenue, London EC4Y 0BD. Tel No.: 01-353 6282, Ext. 285.

Closing date for applications (no forms): **21st October 1985.** (70548)

ESRC ECONOMIC AND SOCIAL RESEARCH COUNCIL

University of Bradford

MANAGEMENT CENTRE.

Research Assistantship in Organizational Analysis

Applications are invited for a 22 month fixed-term Leverhulme Trust financed Research Assistantship commencing 1 January 1986 for project on "Strategy and Structure in Voluntary Organizations." Applicants should possess appropriate qualifications in business studies or other social sciences. Salary in range £6,600 – £7,980 p.a. (under review). Superannuable. Further particulars and application forms from the Deputy Secretary, (Ref: RA/MA/L/TH), University of Bradford, West Yorkshire, BD7 1DP. Closing date 18 October, 1985 (70543)

University of Newcastle upon Tyne

Department of Applied Mathematics

POSTDOCTORAL RESEARCH ASSOCIATE

Applications are invited for an SERC funded Research Associateship in Fluid Dynamics, tenable for a period of 3 years from 1st January 1986. The project is to work on disturbances in Taylor-Couette flow with Dr. C. A. Jones. Applicants should hold, or be about to complete, a doctorate degree, preferably in an area connected with Fluid Dynamics. Some numerical experience would be an advantage.

Starting salary will be up to £7,980 per annum on the Range 1A scale (£7,320–£15,150) according to age, qualifications and experience.

Applications with full curriculum vitae and the names and addresses of three referees, should be sent by 31st October 1985 to Dr. C. Jones, Department of Applied Mathematics, The University, Newcastle upon Tyne, NE1 7RU, from whom further particulars can be obtained.

Kingston Polytechnic

Faculty of Education

RESEARCH ASSISTANT IN THE SCHOOL OF MUSIC

Salary £5,859 - £6,588 including London allowance

A graduate with a good honours degree in psychology or a related discipline is required to work in the School of Music on a project concerning the evaluation of Meditation techniques for the musician, with particular reference to strategies for anxiety reduction. The appointment is for 6 months beginning in January. There may be a possibility of extension. The successful candidate would be encouraged to register for a higher degree.

Details and application forms from the Staffing Officer, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, Surrey KY1 2EE. Tel: 01-549 1366, Ext. 555. Closing date 1st November 1985. (51835) R19

Kingston Polytechnic

Faculty of Science

School of Mathematics

Applications are invited for the post of

RESEARCH ASSISTANT

to work on numerical methods in optimum design problems. The successful applicant will register with the CNAA for a M.Phil./Ph.D.

Applicants should hold a good Honours degree in Mathematics and have a substantial knowledge of Numerical Analysis. The appointment will be for three years.

Salary in the range £5,859 - £6,588 including London allowance.

Details and application forms from the Personnel Officer, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, Surrey KT1 2EE. Tel: 01-549 1366, Ext. 555. Closing date 1st November 1985. (51836) R19

Oxford Christ Church

RESEARCH LECTURESHIPS

The Governing Body proposes to elect two Research Lecturers in the Sciences and two in the Arts, the posts tenable from 1 October 1986, if suitable candidates present themselves.

A Research Lecturer must be well qualified to engage in original research and must undertake to perform some definite literary or scientific work. Research Lectureships are open to men and women. Appointments will be for two years, renewable to four.

The stipend is at present £6,600 p.a. plus University fees. A housing allowance of up to £1,000 p.a. may be paid at the discretion of the Governing Body to a Lecturer living out of College.

Fuller particulars and an application form may be obtained by writing to the Dean's Secretary. Applications must reach the Dean by 1 November 1985. Every candidate will be asked to name three referees and to request them to write directly to the Dean a letter which should reach him not later than 8 November 1985.

Senior Scholarships will be advertised separately in February 1986. (51815) H12

University of Strathclyde

RESEARCH ASSISTANT IN CONTROL THEORY

Applications are invited from candidates who possess, or shortly expect to obtain, a Ph.D. in applied mathematics or control engineering to work on a 3 year SERC project investigating parameterization and parameterized modelling methods for linear and nonlinear robust stability theory and control systems design. An interest in theoretical and computational aspects of CAD and some knowledge of input-output and Liapunov methods in stability theory may be advantageous.

Salary on Range 1A (£7,320 - £15,150 per annum). USS benefit.

Applications (quote Ref: R&D/85) with full curriculum vitae and the names and addresses of three referees should be sent to Professor D.H. Owens, Department of Mathematics, University of Strathclyde, Livingstone Tower, Richmond Street, Glasgow G1 1XH.

Closing date for applications: 7 October 1985. (51850) H12

Overseas

THE FACULTY Exchange Center, a non-profit, faculty-administered program, helps arrange teaching exchanges on the college-university level and house exchanges for study and travel for teachers and administrators at all levels of the education profession. The current roster of members will be made available to new members upon registration. For more information, send a self-addressed envelope and 4

Industry and Commerce

The Wellcome Trust

Scientific Officer

A medical or scientific graduate is required to join the staff of the Wellcome Trust to assist the Deputy Director with the management of its Tropical Medicine and Infectious Diseases programme. This is a new post arising from the increase in funds available for distribution by the Wellcome Trust.

The successful candidate will probably be between the ages of 35 and 55 and will have had first hand acquaintance with the academic scene in the United Kingdom or the tropics. Post-graduate qualifications in a relevant field and an established research record or a wide general interest in science and medicine are essential attributes. An interest in the career development of research workers is highly desirable.

The post is either full-time (but may include a limited amount of academic work) or possibly could be considered on a part-time basis. Applicants should have UK residence status. Salary related to age and experience within Trust scales – which are related to equivalent positions in medical administration. Non-contributory pension and private medical insurance.

Applications, including full curriculum vitae, present salary and the names and addresses of two referees, should be sent, marked confidential, to: Dr. B. M. Ogilvie, The Wellcome Trust, 1 Park Square West, London NW1 4LJ. Tel: 01-486 4902

Overseas continued

The University of the Western Cape is one of the fastest growing Universities in Southern Africa. It is an equal opportunity institution, open to all. There are no race or religious restrictions amongst our student body which currently numbers more than 8 000. Situated near the beautiful city of Cape Town, the University offers not only a wholesome environmental stimulus, but a modern, dynamic approach to challenge the true academic.

The University currently seeks to make the following appointments:

FACULTY OF ARTS

1. **Professor in Sociology**
   (Head of Department)
2. **Professor in History**
3. **Professor in Philosophy**
   (Head of Department)

Date of assumption of duties:

Sociology and History – 1 January 1986.

Philosophy – 1 July 1986.

Applicants should submit as comprehensive a curriculum vitae as possible with the names and addresses of three referees to arrive not later than 31 October 1985. Also indicate the earliest date on which duty can be assumed.

Applications and requests for further information should be addressed to:

The Registrar (Academic)
University of the Western Cape
Private Bag X17
BELLVILLE
7530
Republic of South Africa.

UNIVERSITY OF THE WESTERN CAPE

HV RECRUITMENT NI

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Overseas continued

Saudi Arabia Support Department

ENGLISH LANGUAGE TEACHERS

TAX-FREE OPPORTUNITIES IN SAUDI ARABIA

British Aerospace has continuing requirements for qualified male English Language Teachers to join our staff in Saudi Arabia and teach English to students and cadets beginning their training in the Royal Saudi Air Force.

These are excellent opportunities for experienced teachers to earn high salaries which will be ***tax-free***, subject to completing a minimum of one year's service in Saudi Arabia. Those appointed will be working in well equipped educational facilities as part of our large British expatriate staff.

Applicants must be male UK citizens below the age of 50, with English as their mother tongue. They should be qualified teachers, with a degree in English, Linguistics or Modern Languages and at least 5 years' teaching experience, including 3 years in TEFL.

In addition to the high ***tax-free*** salary, successful candidates will receive free accommodation, messing, medical care, life assurance and other benefits, including travel-paid UK leave.

Please apply in writing, giving brief details of experience, quoting reference 044/THE, to: The Personnel Officer, Saudi Arabia Support Dept., FREEPOST, British Aerospace PLC, Warton Division, Warton Aerodrome, Preston, Lancs PR4 1LA or telephone Preston 634317.

BRITISH AEROSPACE ...up where we belong

Technical Education Post Overseas

Botswana Polytechnic

Principal

Duties: to be responsible to the Botswana Ministry of Education for the administration of the Polytechnic and the implementation of policy.
Qualifications: candidates must possess either an engineering degree or be a corporate member of a recognised Engineering Institution, and have appropriate industrial teaching and administering experience as Head of Department. Candidates must be British with a UK educational background. Preferred age 40-57.
Salary: a basic salary paid locally of Pula 15,828 (£1=P2.4 approximately) plus a normally tax free supplement paid by the British Government under its aid programme of £13,668 (single) or £15,696 (married).
Reference: 86 K 12TH
Benefits for the above post include: 25 per cent terminal gratuity on basic salary, free air passages for appointee and dependant family members plus baggage allowance. Appointees may also be eligible for children's boarding school allowances, holiday visits for UK based children and appointment grant.
Contracts: initially for 30-36 months with the Government of Botswana, starting as soon as possible.
Closing date for applications: 4 October 1985.

For further details and an application form, please write, quoting the post reference number to: Overseas Educational Appointments Department, The British Council, 90-91 Tottenham Court Road, London W1P 0DT.

The British Council

University of Geneva

Faculty of Sciences and Faculty of Humanities

PROFESSOR OF HISTORY AND PHILOSOPHY OF SCIENCE

Full-time appointment. The successful candidate should have a Ph.D. He is expected to teach at undergraduate and graduate levels and to create and lead a research group. Teaching in French is required but a one year period of adjustment can be granted. Position available October 1, 1986, negotiable.

Applications should be sent by November 30, 1985 to the 'Secretariat de la Faculté des Sciences, Université de Geneve, 20 rue Ernest Ansermet, CH-1211 Geneva 4, Switzerland', where inquiries also can be sent. (51817) R14

THES diary

Once again, The *THES* has produced a pocket-sized academic year diary. In an easily read, week-to-a-page format, the diary also contains 14 pages of information and addresses, including full university, polytechnic and Scottish central institution listings, together with research councils, trade unions, and government, local authority and employers' organisations at home and abroad. Copies are available, price £2 inclusive, direct from Linda Bartlett. The Times Supplements, Priory House, St John's Lane, London EC1M 4BX. Cheques should be made payable to "Times Newspapers".

DIRECTORS/ DIRECTORESSES

Sydney, Australia. Trained personnel required from January 1986 to fill two positions to teach:
3 to 6 years (Diploma in early childhood education required)
6 to 12 years group.
These positions are to be filled at a well established and expanding parent run school in a Northern Sydney suburb.
Enquires with C.V. and references to the Secretary, Northside Montessori Society, 42 Bobbinhead Road, Pymble, 2073, Australia. Telephone: (02) 44 5848. (70533)

RMIT

AUSTRALIA
JOURNALISM

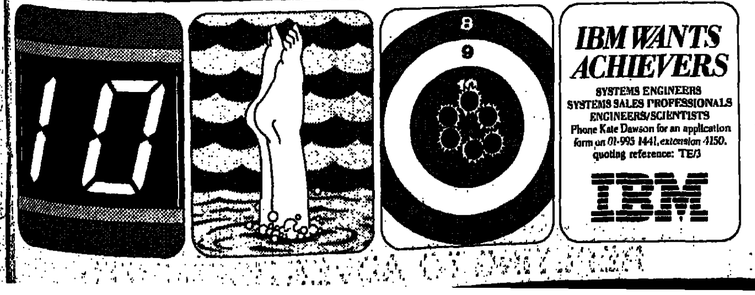
SENIOR LECTURER

(Re-advertised)

The Department of Humanities in the Faculty of Humanities and Social Sciences is seeking a Senior Lecturer to teach the practice and principles of Journalism (Print and/or Broadcast).
Areas of expertise should include some of the following: contemporary journalism practice, reporting, newswriting, layout and design, sub-editing, investigative reporting, the journalist and society, law and ethics, feature writing, specialised reporting, print production technology and broadcast journalism.
Additionally the appointee will be expected to undertake such other duties as are normally expected of academic staff in the Advanced College of RMIT.
Significant journalism experience and appropriate tertiary qualifications are essential. Previous teaching experience in a tertiary institution is highly desirable.
This senior position is permanent; limited term contract can be arranged if required.
Salary Range:
Senior Lecturer I –A$38,524-A$41,029 p.a.
Senior Lecturer II –A$35,203-A$37,695 p.a.
Reference No. 141/04/A. Applications close: 15 November, 1985.
A position description should be obtained from Personnel Services by phoning (03) 660 2337 or telex AA36406 and quoting Ref. No. 141/04/A. Written applications should be addressed to the Senior Appointments Officer:

ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY LIMITED
GPO Box 2476V, Melbourne, Vic. 3001 (70535)

Industry and Commerce continued



PROFESSOR/SENIOR LECTURER COMPUTER SCIENCE

Applications are invited from suitable qualified persons for this recently created vacancy at the University of Durban – Westville, South Africa.

Applicants should hold at least an M.Sc in computer science, or closely related field, and a proven commitment to education and research in the subject.

Further information on the post, salary and the university are available from S.A. Universities Office, Chichester House, 278 High Holborn, London WC1V 7HE. (70542)

Scholarships

The Australian National University

SCHOLARSHIPS FOR PH.D. DEGREE COURSES

Persons who hold, or expect to hold, a bachelor degree with at least upper second class honours or equivalent from a recognised university and who have a capacity for research are invited to apply for Australian National University Ph.D. scholarships, tenable over a wide range of subjects in the Social Sciences and Humanities and in the Biological and Medical, Chemical, Computer, Earth and Physical Sciences. Scholarships are available in any of the departments or units of the Institute of Advanced Studies which consists of Research Schools of Biological Sciences, Chemistry, Earth Sciences, Pacific Studies, Physical Sciences, Social Sciences and the John Curtin School of Medical Research, or the Faculties of Arts, Asian Studies, Economics and Commerce, Law and Science, or in one of the University Centres.

Scholarship Benefits. The basic stipend payable is $A6,790 per annum (tax free) with additional allowances for dependants and housing assistance for married scholars. In addition, return economy-standard air fares and a grant towards removal expenses are normally provided. (The latter will not be provided for Australian citizens overseas who are eligible for Commonwealth *Government Research* Awards).

Tenure. Scholarships are normally tenable for three years and may be taken up at any time of the year.

There is no set closing date, but applicants from outside Australia are advised to apply at least six months before they expect to be available to take up a scholarship, if offered.

Full particulars and application forms are available from the Registrar, The Australian National University, G.P.O. Box 4, Canberra, A.C.T. 2601, Australia, or from the Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF. (51826) H35

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